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**BEFORE THE PUBLIC UTILITIES COMMISSION**  
**OF THE STATE OF CALIFORNIA**

Application of California-American Water  
Company (U210W) for Authorization to  
Increase its Revenues for Water Service by  
\$55,771,300 or 18.71% in the year 2024, by  
\$19,565,300 or 5.50% in the year 2025, and by  
\$19,892,400 or 5.30% in the year 2026.

Application 22-07-XXX

**DIRECT TESTIMONY OF BAHMAN POURTAHERIAN**  
**(FINAL APPLICATION)**

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Dated: July 1, 2022

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7 \$55,771,300 or 18.71% in the year 2024, by  
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Application 22-07-XXX

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11                               **(FINAL APPLICATION)**

12 **I.       INTRODUCTION**

13 Q1.    Please state your name, business address, and telephone number.

14 A1.    My name is Bahman Pourtaherian. My business address is 55 Drohan Dr, Guelph,  
15 Ontario, Canada. My business telephone number is 916-693-1386.

16  
17 Q2.    By whom are you employed and in what capacity?

18 A2.    I am self-employed as a consultant. My firm's name is Blue Planet Consulting. My  
19 consulting expertise is in the areas of regulatory and financial modeling.

20  
21 Q3.    Please briefly outline your responsibilities as it relates to your assignment with California  
22 American Water.

23 A3.    I am responsible for financial, economic, and regulatory modeling, including results of  
24 operation and related issues. I provide expertise in the preparation of rate proceedings,  
25 advice letters, and other regulatory applications. That experience includes filings before  
26 the California Public Utilities Commission ("Commission").

27  
28 Q4.    Briefly describe your education background.

A4. I received a Bachelor of Arts in Economics from the University of California at Berkeley. I am currently attending the University of Guelph and working towards my master's degree in Food, Agriculture, and Natural Resources Economics.

Q5. Please describe your professional experience.

A5. I previously was employed as a senior financial analyst by California-American Water Company ("California American Water") between 2015 and 2019.

Q6. Have you previously testified before utility regulatory commissions?

A6. Yes, I have prepared direct and rebuttal testimony for California American Water in Application ("A.") 19-07-004, California American Water's 2019 general rate case ("GRC") application. Additionally, I have presented at Commission workshops and to Administrative Law Judges outside of the evidentiary hearing setting. I also provided modeling assistance to the Commission under a protective order in connection with A.16-07-002, California American Water's 2016 GRC.

## II. PURPOSE OF TESTIMONY

Q7. What is the purpose of your testimony?

A7. The purpose of my testimony is to provide support for various aspects of California American Water's statewide GRC. I have direct responsibility for numerous areas in this Application. Those responsibilities include, but are not limited to:

Area	Key Items
Application Development and Presentation	<ul style="list-style-type: none"><li>• Status of Results of Operation ("RO") Model</li><li>• Enhancements to RO Model</li><li>• Inclusion of Acquisitions in the RO Model</li></ul>

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Area	Key Items
	<ul style="list-style-type: none"><li>• Summary of Revenue Requirement Request</li></ul>
Revenue Section	<ul style="list-style-type: none"><li>• Customer Count Development<ul style="list-style-type: none"><li>○ Impact of acquisitions in Northern and Southern Divisions</li></ul></li><li>• Consumption Development</li><li>• Total Water Production<ul style="list-style-type: none"><li>○ Non-revenue water</li><li>○ Source of Supply Mix</li></ul></li><li>• Revenues</li></ul>
Production Costs Section	<ul style="list-style-type: none"><li>• Production Costs</li></ul>
General Taxes Section	<ul style="list-style-type: none"><li>• Ad Valorem Taxes</li><li>• Payroll Taxes</li><li>• Other General Taxes</li></ul>
Depreciation Expense	<ul style="list-style-type: none"><li>• Depreciation Expense Calculation</li></ul>
Rate Base Components	<ul style="list-style-type: none"><li>• Discussion of Rate Base Components<ul style="list-style-type: none"><li>○ Utility Plant in Service (“UPIS”) and Accumulated Reserve</li><li>○ Materials and Supplies</li><li>○ Working Cash, Operational (“WCOP”)</li><li>○ Advances and Contributions</li><li>○ Deferred Income Taxes</li></ul></li></ul>

Area	Key Items
Lead/Lag Study	<ul style="list-style-type: none"> <li>Lead Lag Study and calculation of Revenue and Expense Leads and Lags</li> </ul>
Consolidation and Rate Design Modelling	<ul style="list-style-type: none"> <li>Rate design proposals for Southern, Central and Northern Divisions</li> </ul>

### III. SUMMARY OF APPLICATION DEVELOPMENT & PRESENTATION

Q8. Please discuss the status of California American Water's RO Model and the enhancements that were made since the last rate case.

A8. In the 2016 GRC, California American Water presented to the Commission a new macro-based Excel model to replace the old RO Model that had been used since the early 2000s. In 2018, further enhancements were made in the RO model which were consolidating and creating new Global Data files, including an Acquisition Model in the RO model, development of a consolidation mechanisms, enhancement in calculating the Lead Lag Study, building a more robust and dynamic revenue and rate design models, and development of Comparison Exhibits which was used in settlements and decisions.

Since the last rate case proceeding, A.19-07-004, there have been additional enhancements to the model.

- The first enhancement was updating the VBA codes to meet the new Excel code library requirements. In every version of Excel as part of the updates to the feature of the program, some of the library requirements will change as well. The changes to the library requirement made the RO Model VBA code crash so there was a need to update the codes to meet the new library requirements.

- The second enhancement was optimizing the performance of the RO Model. As the complexity of RO Model and its features increased, the performance of the model was reduced due to heavy calculations ran through VBA codes in the background. To increase the performance of the model, Utility Consulting Group (“UCG”) performed an optimization review of the RO model files and identified the areas that could be improved. As a result of this review there were some minor changes made to various files to improve the performance of the model.
- The third enhancement was the development of VBA codes to check for the links and errors. Overtime as the result of making multiple copies of the model for analysis and GRC filings, some link and name errors appeared in the model. New VBA tools were developed to check the model for any link and name range errors.
- The fourth enhancement to the RO model was consolidation of all revenue and rate design files into one file. Each division had a separate revenue and rate design files which were overly complex and calculations in those files would take a long time. In this enhancement the revenue and rate design files for three divisions of Northern, Central, and Southern were consolidated into one file and the calculation speed was increased.
- The last enhancement of the RO Model involved development of documentation and a troubleshooting manual for the RO model.

Q9. Are there any additional enhancements that are being considered by California American Water but have not been included in the RO Model at this time?

A9. Yes. The Company was looking to include in the RO Model an Alert System for RO Model Users. This enhancement was planned to get completed for this rate case, but due



1 to higher priority enhancements it was postponed to the next GRC. The purpose of this  
2 alert system is to advise RO Model Users that data or changes made to the RO Model  
3 were not made correctly and that as a result, the RO Model's calculations and integrity  
4 may be compromised.

5  
6 Q10. Does the Application include the impact of approved, pending and proposed acquisitions  
7 of water and wastewater systems?

8 A10. Yes. This Application includes all of California American Water's existing water and  
9 wastewater operations as of the end of 2021. Additional information on acquisitions is  
10 set forth in Section XI of the Direct Testimony of Stephen (Wes) Owens and Sections III  
11 and VIII of the Direct Testimony of Garry Hofer.

12  
13 Q11. Please provide a summary of California American Water's revenue requirement request  
14 in this Application.

15 A11. California American Water is requesting a statewide increase of \$55,771,300 or 18.71%  
16 in 2024, an increase of \$19,565,300 or 5.50% in 2025, and an increase of \$19,892,400 or  
17 5.30% in the year 2026. A breakdown of this increase by Division and District is  
18 provided in the Application for this proceeding.

19  
20 **IV. REVENUE SECTION**

21 **A. Customer Count Development**

22 Q12. Please explain the customer count projections in this Application.

23 A12. The customer count forecast was developed by economic and public policy consultants,  
24 M-Cubed, and is presented in the testimony of David Mitchell in Attachment 2 to Mr.  
25 Mitchell's testimony. M-Cubed has expertise addressing sales forecasting and rate  
26 design issues for energy, municipal and investor-owned water utilities across the State.  
27 In the balanced rates decision, D.16-12-026, Ordering Paragraph #2, the Commission  
28 required Class A and B water utilities to propose improved forecast methodologies in

1 their next GRCs that consider consumption trends during and following the drought, and  
2 other factors affecting consumption.<sup>1</sup> The historical data and forecast calculation can be  
3 found in the RO Model included in the Minimum Data Requirements.  
4

5 Q13. In addition to the work performed by M-Cubed, is there other testimony on the topic of  
6 customer count forecasts in this GRC application?

7 A13. Yes. Additional testimony on the customer count forecast is provided by California  
8 American Water Vice President of Operations, Garry Hofer, Section III. New housing  
9 developments within California American Water's service areas in Placer County and the  
10 City of Rancho Cordova are expected over the next few years. Annual growth  
11 projections related to this non-historical average growth are discussed in the M-Cubed  
12 Report. Section III of the Direct Testimony of Central Division General Manager  
13 Christopher Cook also addresses growth, i.e., the existence of a moratorium on new  
14 connections in the Monterey Main system.  
15

16 Q14. Please explain the customer growth forecast for the Monterey County District water  
17 customers.

18 A14. It is my understanding that portions of the Monterey County District have been and  
19 remain under a growth moratorium due to continued water supply issues in the region.  
20 As a result, California American Water has held customer counts for these areas flat to  
21 2021 in all projected years for its water operations. The Direct Testimony of Christopher  
22 Cook at Section III discusses the legal, environmental and regulatory limits on growth in  
23 our Central Division and why there is no customer count growth projected.  
24

25 Q15. California American Water has included three new acquisitions in this GRC. How were  
26 customer count forecasts developed for these water systems?  
27

---

28 <sup>1</sup> D.16-12-026, *Providing Guidance on Water Rate Structure and Tiered Rates*, December 9, 2016, p.84.

1 A15. California American Water included the acquisition of Bellflower, Warring and Bass  
2 Lake. California American Water includes a one-time customer increase associated with  
3 acquisitions. For Bass Lake, the number of customers and consumption by class were  
4 based on the most recent Annual CPUC Report. For Warring and Bellflower, the number  
5 of customers and consumption by class were provided by these water utilities through a  
6 data request response. These customers have been included in California American  
7 Water's customer base beginning in 2022 or 2023 based on when the acquisition is  
8 expected to occur.

9  
10 **B. Consumption Development**

11 Q16. Please explain California American Water's consumption estimates for 2024 through  
12 2026.

13 A16. The consumption forecast by customer class by district was developed by M-Cubed and  
14 is presented in the testimony of David Mitchell. Please refer to the testimony of David  
15 Mitchell and Attachment 2 to Mr. Mitchell's testimony.

16  
17 Q17. Were there any exceptions where Mr. Mitchell was not able to apply econometric  
18 models?

19 A17. I am aware of a couple of exceptions. First, California American Water did not have  
20 significant historical data to develop econometric models for the Fruitridge system,  
21 Bellflower, Warring and Bass Lake, and East Pasadena customers. For Bellflower,  
22 Warring and Bass Lake, the consumption forecast was based on recent annual reports and  
23 data responses from the acquired Company. For the East Pasadena system that was  
24 acquired in 2021, the consumption forecast was based on the most recent annual report.  
25 For the Fruitridge system, acquired in 2020, California American Water is proposing to  
26 use the same forecasted consumption per customer as projected for the remainder of the  
27 Sacramento system. The reason for using the Sacramento consumption projections for  
28 Fruitridge is that based on the historical experience in converting the non-metered

1 customers in Sacramento to meter customers, there was a very significant drop in  
2 consumption. We believe that based on this prior historical trend, and the fact that the  
3 Fruitridge service area is very similar to other lower income areas in the Sacramento  
4 Valley, that this same reaction of customer consumption reduction with metering will  
5 occur.

6  
7 Q18. Did the Company calculate a projected level of sales for the residential and commercial  
8 customers using the New Committee Method?

9 A18. No.

10  
11 Q19. Why did California American Water choose not to calculate projected sales using the  
12 New Committee Method?

13 A19. The New Committee Method is the name given to the Commission's Guide for Adjusting  
14 and Estimating Operating Revenues of Water Utilities. It was formerly identified as  
15 Standard Practice ("SP") U-25-W but is now referenced in D.04-06-018, Interim Order  
16 Adopting Rate Case Plan at page 21. The method's purpose is to promote reasonable  
17 uniformity and reliability in the preparation of revenue estimates in connection with  
18 formal rate proceedings. California American Water interprets the Balanced Rates Phase  
19 2 Decision, D.16-12-026, as requiring new forecasting tools and methods. The analysis  
20 is provided in Attachment 2 to Mr. Mitchell's testimony. The Company has not used the  
21 results from the New Committee Method for many years. California American Water  
22 does not believe the results of the regression analysis are a reasonable indicator of future  
23 consumption levels given the decline in consumption trends, the implementation of  
24 conservation rates, conservation education, and the State of California's conservation  
25 commitments.

26  
27 **C. Total Water Production**

28 Q20. What is the purpose of your testimony in regard to water production?

1 A20. The purpose of my testimony is to discuss and support various aspects of California  
2 American Water's calculation of water production in total for each service area and  
3 production by source in each service area.  
4

5 Q21. Generally, how does California American Water calculate water production requirements  
6 for use in the GRC?

7 A21. Water production is calculated by adding total water sales plus an additional amount of  
8 production for distribution system non-revenue water.  
9

10 Q22. What is non-revenue water?

11 A22. Non-revenue water is the difference between annual water sales and annual water  
12 produced and delivered to the distribution system.  
13

14 Q23. Can you explain broadly and in slightly more detail how you calculated water production  
15 for all the non-recorded years in this application?

16 A23. To develop the estimate of water production, the Company first determined the water  
17 sales for each service area per Section IV.B of this testimony. After the projected sales  
18 were calculated, the Company added to it the five-year average of non-revenue water –  
19 but as an amount, not as a percentage.  
20

21 Q24. Why do you use an average of annual non-revenue water in amount and not percentage?

22 A24. The California Public Advocate's Office and California American Water have agreed that  
23 non-revenue water is based on factors which are based more on averages over time and  
24 are not sales volumetrically driven. Therefore, per the Settlement in A.13-07-002<sup>2</sup>, and  
25 as adopted in D.15-04-007, non-revenue water should be based on actual quantity  
26

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27 <sup>2</sup> See D.15-04-007, Attachment A, *Partial Settlement Agreement Between California-American Water*  
28 *Company, City of Pacific Grove, Las Palmas Wastewater Committee, Monterey Peninsula Water*  
*Management District, and the Office of Ratepayer Advocates on Revenue Issues in the General Rate Case*  
*of A.13-07-002*, p.16.

1 averages and not on percentages. The percentages are still shown for informational  
2 purposes, but they are not used in developing forecasts. They are only shown as the  
3 results of the forecasts.  
4

5 Q25. You stated above that non-revenue water is the difference between total water sales and  
6 total production and there are differences to explain. Please address the reasons  
7 differences can occur.

8 A25. There are a number of reasons why California American Water may not use the 5-year  
9 average of differences in production and sales to develop a non-revenue amount. If you  
10 have unmetered sales in any year, as we did in the Sacramento District, then it may be  
11 impossible to get accurate results for non-revenue water in a particular period. There  
12 could be reasons an unexpectedly high level of non-revenue water occurred in a  
13 particular period that would need to be adjusted out. There may be certain situations  
14 where water produced does not enter the system for distribution purposes but for other  
15 purposes, such as aquifer storage and recovery (“ASR”), which would need to be  
16 eliminated from production. These are some of the general reasons that a recorded 5-year  
17 average may not be used in a particular situation.  
18

19 Q26. Please inform the Commission in what service area’s total production is not used to  
20 develop non-revenue water and why.

21 A26. This only occurs in the Central Division, where ASR injection is used, and that water  
22 must be removed from total production as it is injected into the aquifer. No adjustment is  
23 necessary for ASR recovery as that amount is already a part of well production.  
24

25 Q27. What is the Monterey Non Revenue Water (“NRW”) Reward Penalty Mechanism?

26 A27. It is described as follows in D.09-07-021 on pages 56-57:  
27  
28

Specifically, we will create an unaccounted for water penalty/reward program to be calculated based on Cal-Am's most recent annual unaccounted for water percentage. To the extent Cal-Am exceeds the standards above, Cal-Am will earn a financial reward and should Cal-Am fail to achieve those standards, Cal-Am will incur a financial penalty. The per acre-foot amount to be used to calculate the financial reward or penalty is \$2,018.79/acre-foot. In its annual Water Revenue Adjustment Mechanism ("WRAM") filing, Cal-Am will report the difference between its systems' water production and billed water. To the extent this amount is less than the percentage adopted above, Cal-Am will earn a reward, which will be included in the amount to be amortized to ratepayers as part of the WRAM Advice Letter filing. If the difference between production and billing is greater than the adopted percentage, then a similarly calculated penalty will be offset against any amount to be collected under the WRAM.

Q28. Is California American Water requesting any change to the last adopted NRW Reward Penalty Mechanism?

A28. No, California American Water is not proposing any changes to the mechanism, as it was last approved in D.18-12-021.

Q29. What issues arise in the determination of water production by source?

A29. There are many issues that must be considered on how the water production by source should be determined. The purchased water and power workpapers in the filing set the level of water production that is appropriate for all of the operating water systems. I will address the calculation of production costs later in my testimony. What I want to raise here is that changes in water production all need to be reviewed for the effects on the sources where the changes will have to be made in the systems. It is very important to understand that changes cannot simply be made on a pro-rata basis or on a basis of reductions to the highest cost source. There are many pressure zones and operating zones

1 in each operating District. For example, Sacramento has 10 operating systems and a  
2 change in production would have to be evaluated as to how that change may apply to  
3 different systems and how that would impact the various sources. Some of the  
4 Sacramento systems are 100% purchased water, some are 100% well water, and others  
5 are a combination of the two sources. But additionally, there are certain minimum  
6 purchases of water that may have to be considered.

7  
8 As another example, in the San Marino service area in Los Angeles, there are many  
9 considerations in changing sources and water production amounts, including a trade-off  
10 in pumping rights with the Duarte service area. Again, all this must be considered before  
11 making any changes in the water production amounts per source as filed in our  
12 application.

13  
14 **D. Revenues**

15 Q30. How did California American Water calculate its present rate revenue?

16 A30. California American Water used the rates approved in its 2022 ACAM and step advice  
17 letter ("AL") filings, along with the following adjustments:

- 18  
19 1) The included water offset surcharges currently in effect have been included in  
20 present rate revenues.  
21 2) Inclusion of current rate revenue of East Pasadena in present rate revenue.  
22 3) Inclusion of current rate revenues associated with the three pending acquisitions –  
23 Bellflower, Warring and Bass Lake – have been included in present rate revenues.

24 **E. Other Revenues**

25 Q31. Please describe Other Revenues?

26 A31. Other Revenues consist primarily of Method 5 revenues related to the tax gross up on  
27 applicable contributions and advances, revenues from non-tariffed products and services  
28



1 such as antenna leases, miscellaneous revenue consisting of late fees, reconnection fees,  
2 after hour charges, etc.

3  
4 Q32. How are Other Revenues forecasted?

5 A32. Method 5 revenues are forecast based on application of the tariffed gross up factor  
6 applied to the forecasted applicable contributions and advances. Antenna leases are  
7 forecasted based on the five year average from 2017 through 2021. All other items are  
8 forecasted based on the two year average for 2018 and 2019. These years are chosen for  
9 the forecast because they exclude impacts from the COVID pandemic period, during  
10 which California American Water did not charge late fees and during which the  
11 Company was under a disconnection moratorium. Additionally, as discussed in the Direct  
12 Testimony of Patrick Pilz at Section XIV California American Water is proposing to  
13 eliminate late payment fees for residential customers. This proposal is reflected in the  
14 forecast of Other Revenues, which includes forecasted late fees for non-residential  
15 customers only.

16  
17 **V. PRODUCTION COSTS SECTION**

18 **A. Source of Supply – Purchased Water (Account #704)**

19 Q33. How is purchased water forecast for 2024 and 2025?

20 A33. The detailed calculations are included in the Chapter 4 workpapers. The costs are  
21 primarily based on estimated total water production, district operations assessments of  
22 sources and uses of produced and purchased water, and the current prices and  
23 assessments from water provider agencies. If water production values are changed, the  
24 costs tied to that production have to be reviewed in their entirety, as the sources and uses  
25 of water can also change.

26  
27 The exceptions to this process are primarily in the Central Division. The Central  
28 Division has historically recorded Seaside Basin Watermaster costs in the purchased

1 water account. This practice is continued in this application. The costs projected for the  
2 test year reflect the Marina Coastal Wheeler fee and the 5-year average of Watermaster  
3 assessment, escalated for inflation. This is the best knowledge that California American  
4 Water has of the likely charges it will incur. Additionally, the purchased water contains  
5 costs related to the Sand City Desalination plant and the Pure Water Monterey Project.  
6 The specifics of the costs included are discussed later in this testimony.  
7

8 **B. Source of Supply – Sand City Desalination (Account #704)**

9 Q34. Please explain your request as it pertains to the Sand City desalination facility.

10 A34. Currently, D.13-04-015 allows California American Water to update costs related to Sand  
11 City with the exception of fixed costs of \$414,672<sup>3</sup>. In addition to the fixed costs, the  
12 other costs include repair costs, other operations and maintenance costs, purchased power  
13 and property taxes. All of these were calculated based on a five-year inflation adjusted  
14 average based on the rate case plan methodology. The 2016 GRC decision, D.18-12-021,  
15 approved California American Water's request to move the Sand City Desalination costs  
16 into the Modified Cost Balancing Account ("MCBA") for recovery through the MCBA  
17 surcharge, similar to all other purchased water costs.  
18

19 Q35. What are the costs currently authorized and how do they compare with what is proposed?

20 A35. Please see the table below.  
21  
22  
23  
24  
25  
26

---

27 <sup>3</sup> D.13-04-015 *Decision Authorizing Filing of Sand City Desalination Plant Purchased Water Balancing*  
28 *Account and Surcharge Advice Letters, and Approving Partial Settlement Agreement*; Ordering Paragraph  
6b.

	<b>2021</b>	<b>2024</b>
	<b>Authorized</b>	<b>Proposed</b>
Repair Costs	\$241,646	\$246,526
Other O&M Costs	\$24,584	\$35,029
Purchased Power	\$151,911	\$190,728
Property Taxes	<u>\$73,079</u>	<u>\$97,093</u>
Total	\$491,220	\$569,376
Fixed Cost	<u>\$414,672</u>	<u>\$414,677</u>
Total Cost	\$905,892	\$984,054
Acre Feet (AF)	300	300
\$/AF	\$3,020	\$3,280

**C. Pumping – Purchased Power (Account #726)**

Q36. How is purchased power forecast for 2024 and 2025?

A36. A34. Purchased power is calculated utilizing an estimate of total kilowatt hour (“kwh”) usage multiplied by the cost per kwh for each district. Based on 2021 data from California American Water’s power providers, kwh usage was divided by 2021 water production to determine a kwh/ccf metric for each district. This metric is then applied against the estimated water production quantities in 2024 and 2025 to develop total kwh usage in those years. Similarly, the cost per kwh is calculated by taking the 2021 cost per district and dividing it by 2021’s kwh usage. 2021 data were used because they contain the most up to date pricing from power providers and are more representative of the costs to be incurred.

**D. Water Treatment – Chemicals (Account #744)**

Q37. How were chemicals forecast for 2024 and 2025?

A37. In summary, chemical costs were calculated based on three years of average actual chemical usage, three years of actual water production, projected chemical prices for 2022, forecasted chemical costs for the years 2022 – 2025 and using projected water production for the years 2022 – 2025. This data was used for all service areas of the company and are included in PUC account 744.

The detailed calculation is as follows: First, the analysis incorporates current chemical costs as of May 2022. Second, a three-year average of each chemical quantity by district was calculated. Third, a three-year average of water production by district was calculated. Using the first and second calculation discussed above, a recorded escalated price per unit of each chemical by district was calculated. Then using the second and third calculation discussed above, a chemical pounds per unit of water production was calculated. The recorded escalated price per pound of chemical was further escalated for years 2022 – 2025 to calculate a projected per unit cost per lb. of each chemical by year for 2022 - 2025. This projected per unit cost per pound of chemical was then multiplied by the projected total water production and the pounds of chemical per unit of water production to calculate the total projected chemical cost by district by year for 2022 - 2025.

Q38. Is it important to use up to date chemical cost information?

A38. Yes, it is. It is my understanding that California American Water has experienced, and is expected to experience in the future, substantial increases in chemical costs. Factors driving chemical cost volatility, including COVID-19, inflationary growth, the conflict in Ukraine and associated impacts on energy prices, and overall supply and demand pressure within a consolidating market are addressed in Section IX of the Testimony of Stephen (Wes) Owens. Due to this price volatility, it is critical to use the most up to date chemical cost factors, and to use realistic escalation factors to forecast chemical expense

through the 2024 test year. In this instance, I recommend use of forecasted chemical costs for 2023 through 2025 based on input from Service Company's centralized Supply Chain Department.

## **VI. GENERAL TAXES**

Q39. How were the Ad Valorem taxes calculated in the RO model?

A39. The Ad Valorem tax rate in RO model is calculated by dividing actual Ad Valorem taxes paid in year 2021 by the actual taxable plant for the year 2020. Forecasted Ad Valorem tax expense was calculated for the years 2022 – 2025 by multiplying the calculated Ad Valorem tax rates by the forecasted taxable plant.

Q40. How were the Payroll Taxes calculated in the RO model?

A40. The Company applied the statutory tax rates and bases to each employees' projected wages, then applied the capitalization rate for each district to determine the projected amounts to be expensed and capitalized. For Federal Insurance Contributions Act ("FICA"), the Company used the taxable base of \$147,000 and a rate of 6.20%. For the Medicare portion of FICA, there is no taxable base limit. A rate of 1.45% was applied to all wages. For State Unemployment Tax Act or SUTA, the Company used a taxable base of \$7,000 and a rate of 6.20%. For Federal Unemployment Tax Act or FUTA, the Company used a taxable base of \$7,000 and a rate of 0.6%.

Q41. How were the Other Taxes and License Taxes calculated in the RO model?

A41. The Company used a five-year average and applied the escalation factors to calculate the projected amounts for 2022 – 2025.

## **VII. DEPRECIATION EXPENSE**

Q42. How were the estimates for plant depreciation expense calculated?

A42. The current authorized depreciation rates in D.18-12-021 were used to estimate the depreciation expense for 2022 - 2023. The current approved depreciation rates were applied to the average Utility Plant in Service for each of the years 2022 - 2023. California American Water hired Alliance Consulting Group to prepare a Depreciation Study. Based on the results of that study, included as Attachment 6 to the Direct Testimony of Wes Owens, California American Water has utilized the proposed depreciation rates to calculate the depreciation expense for 2024 – 2025. The proposed depreciation rates were applied to the average Utility Plant in Service for 2024 – 2025. Please refer to the Direct Testimony of Wes Owens at Section XIII for a discussion of the development of the proposed depreciation rates.

### **VIII. RATE BASE**

Q43. California American Water’s proposed rate base in this application represents an increase of approximately \$254 million over the level approved for 2021 in the last rate case. Can you please identify the drivers for the increased rate base?

A43. There are three main drivers for the increase in the Company’s rate base. First is an increase in capital and the capital-related rate base elements (utility plant, accumulated depreciation, customer advances and Contributions in Aid of Construction [“CIAC”]), which represents the majority of the proposed increase. The second and smaller driver relates to the acquisitions that the Company includes in rate base.

Q44. Please discuss the elements of rate base as shown in Chapter 9, Table 9.1 in each RO Report.

A44. Rate base represents California American Water’s net investment in Utility Plant assets and other assets that are used in providing water and wastewater services to its customers. The Company’s proposed rate base for each district or consolidated group consists of the following: 1) investments in Utility Plant assets; 2) Materials and Supplies; 3) WCOP; and 4) Working Cash, Lead Lag Study. This gross investment is reduced by the

Accumulated Reserve for Depreciation, Customer Advances and Contributions, Unamortized Advances and Contributions and Deferred Income Taxes, both federal and state. The investment in Utility Plant assets includes both investments on projects completed and placed into service, and projects not completed and included in Construction Work in Progress (“CWIP”).

Q45. How did the Company calculate each component of rate base that you have identified in the response to the previous question?

A45. In this section of my direct testimony, I will discuss each of the rate base elements that I noted with the exception of Working Cash, Lead Lag Study. I have devoted an entire section in my direct testimony to the Working Cash, Lead Lag Study.

The two largest components of rate base are the balance in Weighted Average Utility Plant in Service (“UPIS”) and the balance in the Weighted Average Accumulated Reserve for Depreciation, as shown in each RO Report in Chapter 9 Table 9.1. The Weighted Average UPIS balance contains the original cost of the assets that are or will be devoted to providing utility services to the customers of California American Water. For water assets, they include facilities devoted to source of supply, pumping, water treatment, transmission and distribution and administrative and general. For wastewater assets, they include facilities devoted to treatment, collection and pumping.

The Weighted Average Accumulated Reserve for Depreciation balance contains the accumulated balance of depreciation expense taken on all utility assets to date, less utility plant retirements and cost of removal, net of salvage. This rate base element is deducted from rate base.

Q46. How was the forecast of UPIS calculated for 2022 - 2025?

1 A46. The forecast of year-end UPIS for 2022 - 2025 was calculated by adding the projected  
2 capital expenditures to the recorded balance of UPIS as of December 2021 and deducting  
3 annual plant retirements. Forecast capital expenditures are supported by the Strategic  
4 Capital Expenditure Plan ("SCEP"). The SCEP reflects all of the capital projects and  
5 capital expenditures for each district for 2022 - 2025. When a capital project is  
6 completed, the cost of the project is recorded to the appropriate plant account, which adds  
7 to the utility plant balance in the year in which the project is completed and reduces the  
8 balance in CWIP. The forecast of plant retirements for each year 2022 - 2025 is based on  
9 a 5-year historical average ratio (2017 - 2021) consistent with the adjustments addressed  
10 in the last GRC and accepted in D.21-11-018. The ratio calculation is done by utility  
11 plant account. However, in some instances where the 5-year average ratio for an account  
12 appeared to be not reasonable, the historical data was reviewed. Based on this review,  
13 adjustments were made to the historical retirement ratios. These adjustments included  
14 retirement outliers and/or one-time retirements.

15  
16 Q47. How did the Company develop the SCEP?

17 A47. A SCEP is developed for each district. Section IV of the Direct Testimony of Ian Crooks  
18 discusses the SCEP or Capital Investment Management ("CIM") process. Generally, the  
19 SCEP consists of three project types. The first type is projects funded by others. The  
20 second type is recurring projects ("RPs"). The third type is investment projects ("IPs").  
21 The Engineering Department forecasts direct costs in each project. Direct costs include  
22 direct company labor, direct overhead benefits, direct overhead for workers  
23 compensation, outside contractor and engineering and if required, legal fees. Direct costs  
24 get forecast in the project for engineering and design, permitting, land easements or  
25 procurement, bidding, project and construction administration, technical support during  
26 construction, and actual construction costs. In addition, Engineering Overhead, and if  
27 applicable, Allowance for Funds Used During Construction ("AFUDC") and contingency  
28 costs are also forecast in the project.



1 Q48. Please describe Engineering Overhead.

2 A48. Engineering Overhead costs are those that are incurred to support and deliver the capital  
3 expenditure program for California American Water. These costs cannot be directly  
4 assignable to a specific capital investment project but benefit all capital investment  
5 projects. Costs included in the Engineering Overhead are indirect Company labor, labor  
6 overhead including benefits, payroll taxes, workers compensation and transportation and  
7 other costs such as employee travel costs, communication costs, contractor costs, other  
8 transportation costs and Service Company costs.

9  
10 Q49. Are there any adjustments to Engineering Overhead.

11 A49. Yes, forecasted overhead for the Cal Am Facilities related to the Monterey Peninsula  
12 Water Supply projected are removed from the overhead pool for GRC forecasting  
13 purposes as they are included for cost recovery in A.21-11-024.<sup>4</sup> Amongst other requests  
14 in that proceeding California American Water is seeking cost recovery for facilities  
15 necessary to maximize the use of the supplemental water from the Pure Water Monterey  
16 expansion. These additional facilities include (1) Carmel Valley Pump Station, (2)  
17 General Jim Moore parallel pipeline, (3) Extraction Wells 1 and 2 and chemical treatment  
18 facilities, and (4) Extraction Wells 3 and 4. Overhead related to these facilities is  
19 removed from the GRC overhead pool forecast to avoid duplication of recovery.  
20 However, if the overhead is eliminated in A.21-11-024 it must ultimately be included in  
21 the overhead pool approved in this GRC proceeding.

22  
23 Q50. How are the Engineering Overhead costs allocated to ongoing capital investment  
24 projects?

25  
26  
27 <sup>4</sup> A.21-11-024: Application of California-American Water Company (U210W) to obtain approval of the  
28 amended and restated water purchase agreement for the Pure Water Monterey Groundwater  
Replenishment Project, update supply and demand estimates for the Monterey Peninsula Water Supply  
Project, and cost recovery

1 A50. Engineering Overhead dollars are allocated to capital investment projects based on the  
2 actual direct costs incurred for each capital investment project as a percentage of the total  
3 direct cost incurred for all projects. For example, if a capital investment project had 2%  
4 of the total actual direct costs for all projects, then 2% of the Engineering Overhead pool  
5 of dollars would be allocated to that capital investment project.

6  
7 Q51. Is this the first rate case that California American Water is proposing to use this  
8 calculation to allocate Engineering Overhead to investment projects in the RO Model?

9 A51. No. In the 2016 and 2019 GRCs, the Company proposed the calculation and allocation  
10 of Engineering Overhead as I have described it above.

11  
12 Q52. Did the Commission accept the Company's methodology for the allocation of  
13 Engineering Overhead in the RO Model?

14 A52. Yes. In D.18-12-021, the Commission approved the Company's proposed methodology  
15 on the grounds that it "will result in a more accurate overall number since the overall  
16 number will be automatically adjusted as certain costs within the RO Model are  
17 adjusted.<sup>5</sup> The same methodology was used in 2019 GRC and it was incorporated into  
18 the Settlement Agreement adopted in D.21-11-018.

19  
20 Q53. What are the benefits of the California American Water's methodology?

21 A53. California American Water believes that its methodology is a more accurate approach for  
22 calculating Engineering Overhead because the calculation uses the capitalized labor,  
23 capitalized labor benefits and other capitalized costs that are developed in the RO Model.

24  
25 Q54. How is it more accurate?

26 A54. First, as adjustments are made to California American Water's capital expenditure  
27 program (increase, reduce or eliminate capital investment projects), then the Engineering

28 <sup>5</sup> D.18-12-021, p.290, Finding of Fact No. 189.

Overhead, which would not change if the direct project cost is reduced or eliminated, is reallocated to the remaining capital investment projects. And second, if an adjustment is made to reduce certain costs such as labor, pensions, group insurance and other post-employment benefits (“OPEBs”), then the amount that is capitalized is also reduced, which reduces the Engineering Overhead to be allocated to all the projects.

Q55. Please explain contingency costs.

A55. A project’s contingency cost is a line item within a project that accounts for the likely unforeseen issues that will arise during the preliminary engineering design, permitting and construction of a project. It is necessary to define and implement contingency appropriately, so that project budgets are effectively established and managed for construction projects. Examples of some contingency items are as follows:

- Minor design changes;
- Corrections for incorrect assumptions (subsurface conditions);
- Unanticipated price changes; and
- Unforeseen or new regulations, safety requirements, and codes.

Shown below are the Contingency Rates used on projects in the rate case. If a project has a contingency, then a Contingency Flag is assigned to the project.

Contingency Flag	Contingency Rates
1.	5.00%
2.	10.00%
3.	15.00%
4.	20.00%
5.	25.00%

1 The Contingency Flag assigned to a project would be based on the project's complexity  
2 and stage in the project's overall development. Projects with few unknowns, low risk of  
3 unforeseen events and fairly well along in development would have a smaller  
4 contingency than those projects with more complexity, a greater risk of unforeseen events  
5 and are far less developed.

6  
7 Q56. Who assigned the contingency factor to each project?

8 A56. The contingency factors were assigned to the projects by the Engineering group based on  
9 their knowledge and understanding of the contingency factors and the complexity of  
10 individual projects.

11  
12 Q57. Are there other items that are added into the cost of a construction project that are  
13 determined in the RO Model rather than provided by Engineering?

14 A57. Yes, the RO Model also calculates AFUDC.

15  
16 Q58. Please discuss AFUDC.

17 A58. AFUDC is being calculated and added to Capital Advice Letter Projects and projects  
18 which are tracked in memorandum accounts.

19  
20 Q59. How was the projection of Accumulated Reserve for Depreciation calculated for 2022 -  
21 2025?

22 A59. The forecast of year-end Accumulated Reserve for Depreciation for 2022 - 2025 was  
23 calculated by adding the annual depreciation accruals to the recorded balance as of  
24 December 2021. The annual depreciation accruals are determined using current and  
25 proposed depreciation rates for 2022 - 2025. From this balance, forecast retirements and  
26 cost of removal, net of salvage, were deducted to calculate the ending balance for each  
27 district for each year from 2022 – 2025. The forecast retirements were calculated based  
28 on my discussion above and would be the same as those reflected as a reduction to UPIS.

1 The calculation of the cost of removal, net of salvage, was based on historical  
2 information, detailed engineering estimates, and, where available, information provided  
3 by contractor quotes.  
4

5 Q60. Table 9.1 of Chapter 9 of the RO Report reflects a calculation of the weighted average for  
6 both UPIS and the Accumulated Reserve for Depreciation. Please explain these  
7 calculations.

8 A60. The amounts included in Table 9.1 of Chapter 9 for UPIS and Accumulated Reserve for  
9 Depreciation, and supported in Table 7.1 of Chapter 7 and Table 8.1 of Chapter 8, use a  
10 historical 6-year average (2016 - 2021) of the balances for UPIS and CWIP and  
11 Accumulated Reserve for Depreciation to calculate the forecast average balances for each  
12 year from 2022 - 2025. This method and calculation is a standard practice for  
13 determining the weighted average balance of UPIS and Accumulated Reserve for  
14 Depreciation in rate base. California American Water used Los Angeles's weighting  
15 factors for the Southern Division, due to the fact that the majority of assets are located in  
16 that area.  
17

18 Q61. Please discuss the calculation of the Materials and Supplies element in rate base.

19 A61. Materials and Supplies represent inventories of plant materials needed to be on hand in  
20 the event of emergency (e.g., pipe, hydrants, and other plant materials, colloquially  
21 known as "Stock E") and chemicals needed for daily use (colloquially known as "Stock  
22 C"). The amounts reflected in Table 9.1 of Chapter 9 of the RO Report reflect a 5-year  
23 historical average (2017 - 2021) and are escalated for inflation.  
24

25 Q62. California American Water's rate base includes a balance for WCOP. What is included  
26 in the balance for this rate base element?

27 A62. The balance in WCOP has typically included investments in assets required to provide  
28 utility service or for investments in assets made by the Company as a result of providing

1 utility service. They include working funds, special deposits, miscellaneous receivables,  
2 prepaid audit fees, prepayments, and unamortized deferred maintenance costs. All of  
3 these items reflect a five-year average of recorded data (2017 - 2021) with the exception  
4 of the unamortized deferred maintenance costs which reflect projected levels for 2022 -  
5 2025.

6  
7 Q63. California American Water's rate base reflects a reduction for Advances for  
8 Construction, CIAC, and Unamortized Advances and Contributions. Please discuss each  
9 of these components and how they were developed for the rate case.

10 A63. The balances in each of these categories represent cost-free capital that was contributed  
11 by others to fund capital projects. Because the funds were not contributed by the  
12 Company, these amounts are being deducted from rate base so the Company's customers  
13 do not pay a return on the assets funded by others. The calculation for each of these  
14 components started with the actual recorded balance at the end of December 2021. The  
15 recorded amounts for Advances for Construction and CIAC were adjusted for anticipated  
16 future changes in Advances and Contributions based on the historical trends for receipts  
17 and refunds. In addition, the amortization of the Unamortized Advances and  
18 Contributions for the Sacramento and Larkfield Districts was continued through 2022.

19  
20 Q64. And finally, please discuss the amounts reducing rate base for Accumulated Deferred  
21 Federal and State Income Taxes.

22 A64. Rate base is reduced by the projected net average balance in deferred federal and state  
23 income taxes related to plant assets, advances and contributions and investment tax  
24 credits. Deferred income taxes are created due to a timing difference between when the  
25 Company is permitted to deduct expenses for tax purposes versus when it is permitted to  
26 deduct them for financial reporting purposes. For example, the Company is permitted to  
27 generally deduct depreciation on plant assets sooner for tax purposes than for financial  
28 reporting purposes. As a result, a deferred tax liability is created because the earlier tax

1 deduction for tax purposes reduces the current tax liability on the book financial reports.  
2 It is this deferred tax liability that will be deducted from rate base until the timing  
3 difference between book and tax deductions reverses.  
4

5 The starting point for the calculation of deferred income taxes in rate base was the actual  
6 recorded amounts for the deferred tax liabilities, net of deferred tax assets related to  
7 utility plant assets, Advances and Contributions and Investment Tax Credits as of  
8 December 2021. This amount for each district was adjusted based on the forecasted  
9 activity for 2022 - 2025 that impacts deferred income taxes. The forecasted activity that  
10 impacts deferred income taxes are plant additions, plant retirements, tax depreciation,  
11 deductible tax repairs, book depreciation, advances and CIAC, cost of removal, net of  
12 salvage, tax gains and losses on retirement of assets, amortization of excess deferred  
13 income taxes, and the current income taxes rates of 21% for federal and 8.84% for state.  
14 As discussed in Section III of the Direct Testimony of Scott Cullen, the Company is  
15 using Power Tax to calculate the deferred tax balances for 2022 – 2025. Please explain the  
16 larger components of deferred income taxes that are included in rate base.  
17

18 The federal provisions of the Economic Tax Act of 1981 and the Tax Reform Act of 1986  
19 (“TRA-86”) require utilities to use straight-line depreciation for computing taxes charged  
20 to expenses for ratemaking purposes (normalization method of accounting), while using  
21 accelerated cost recovery system rates (“ACRS”) and modified accelerated cost recovery  
22 system rates (“MACRS”) for computing taxes actually paid. The difference between  
23 taxes based on book depreciation and taxes based on tax depreciation is generally  
24 credited to deferred taxes and represents the largest portion of the deferred taxes balance  
25 reflected in rate base. As discussed above, the tax repairs deduction is included in the  
26 calculation of tax depreciation.  
27  
28

Another component of deferred taxes is the deferred taxes associated with taxable advances and contributions. The TRA-86 required that certain advances and contributions be included in taxable income. In D.87-09-026, the Commission provided alternate accounting and ratemaking methods for advances and contributions received and income taxes paid. The Company elected to use Method 5. Under Method 5, some of the tax costs incurred on certain advances and contributions would be paid by the utility and debited to deferred taxes, thereby increasing rate base. These balances would be credited to deferred taxes as the related depreciation tax benefits of the contributed or advanced facilities are received, thereby decreasing rate base. The Tax Cut and Jobs Acts of 2017 made all contributions taxable, but in 2021, President Biden signed into law the Infrastructure Investment and Jobs Act which reversed the taxability of all customer advances and contributions with the exception of service line connection fees which continues to be taxable.

Q65. How did California American Water calculate the accumulated customer advances and CIAC deferred taxes included in deferred income taxes in Chapter 9, Table 9.1 of each RO Report?

A65. The Company calculated accumulated deferred revenues based on Method 5 as prescribed in D.87-09-026 for the years 2022 thru 2025. Under Method 5, a customer making a taxable Advance or CIAC pays an additional gross-up amount, based on the Company's Tariff Rule 15, at the time of the contribution, which is credited to deferred revenues minus income taxes. California American Water amortizes the deferred revenues over the tax life of the facilities acquired with the contribution, by crediting miscellaneous revenues, as reflected in Chapter 3 revenues of each RO Report.

Q66. Do you have any other comments regarding deferred income taxes in rate base?

A66. Yes. The calculation of the deferred taxes for 2022 - 2025 includes not only the deduction for tax depreciation but also includes the deduction for tax repairs, cost of



1 removal, gains and losses and the amortization of the excess deferred taxes, as discussed  
2 in the Direct Testimony of Scott Cullen at Sections III and IV.

3  
4 **IX. LEAD LAG STUDY**

5 Q67. What is the purpose of your direct testimony in this proceeding as it relates to Working  
6 Cash, Lead Lag Study?

7 A67. My testimony addresses the calculation of the working cash allowance using the Lead  
8 Lag Study methodology and the operational cash requirement methodology as outlined in  
9 the Commission's Standard Practice ("SP") U-16-W.

10  
11 Q68. Please discuss what you mean by the phrase "working cash allowance."

12 A68. Working cash allowance is a component of rate base. Its inclusion in rate base is to  
13 compensate investors for the funds provided by them which are used in the business to  
14 pay expenses prior to receipt of customer revenues to offset them.

15  
16 Q69. Please discuss California American Water's calculation of its working cash allowance  
17 using the Lead Lag Study method.

18 A69. The Company calculated net revenue and expense lags. The revenue lag measures the  
19 average time in days from the time the Company provides service to its customers to the  
20 point when the customers pay the Company for the service. The expense lag measures  
21 the average number of days the Company pays its vendors for the services provided. If  
22 the difference between the average revenue lag and the average expense lag is positive,  
23 then the investors have funded the working cash allowance, which will require an  
24 increase in rate base. If the difference between the average revenue lag and the average  
25 expense lag is negative, then the customers have funded the working cash allowance,  
26 which may require a decrease in rate base.

27  
28 Q70. From what time period were data used to prepare the Lead Lag Study?

A70. Data for the twelve months ending on September 30, 2021 were used in this analysis. California American Water analyzed revenues, accounts receivable, and billing cycles to calculate its revenue lag, and it analyzed cash payment transactions and invoices to develop the expense lags.

Q71. What are the various lags that should be considered in a working cash allowance analysis?

A71. As noted above, two broad categories of lags should be considered: 1) lags associated with the collection of revenues owed to a company (“revenue lags”); and 2) lag times associated with the payments for goods and services received by the Company (“expense lags”).

Q72. What is a revenue lag?

A72. A revenue lag refers to the elapsed time between the delivery of a company's product (i.e., water and wastewater) and its ability to use the funds received as payment for the delivery of the product. All else being equal, the longer the revenue lag, the higher the working cash allowance will be.

Q73. What is an expense lag?

A73. The expense lag refers to the elapsed time from when a good or service is provided to a company to the point in time when the company pays for the good or service and the funds are no longer available to the company. All else being equal, the longer the expense lag, the lower the working cash allowance will be.

Q74. What was the source of information used to determine the lags in the working cash allowance analysis?

A74. Information pertaining to customer billing and collections and the payment of invoices for goods and services was analyzed. Data from California American Water’s accounts

1 payable, customer service, payroll, and tax systems as well as records from the  
2 Company's accounts were also utilized. The information analyzed from these sources,  
3 together with analyses of specific invoices, led to the determination of the appropriate  
4 number of lag days for California American Water.  
5

6 Q75. How is the total revenue lag calculated?

7 A75. In the calculation, the revenue lag is separated into three distinct components: 1) service  
8 lag; 2) billing lag; and 3) collection lag. Considered together, these three components of  
9 the revenue lag are totaled to calculate the total revenue lag.  
10

11 Q76. What is meant by service lag?

12 A76. The service lag refers to the number of days from the current meter reading date to the  
13 previous meter reading which is then divided by two to calculate the average service  
14 period lag.  
15

16 Q77. What is meant by billing lag?

17 A77. Billing lag refers to the average number of days from the date on which the meter was  
18 read until the date the customer was billed. The billing lag is determined by analyzing  
19 the Company's monthly billing schedules and meter reading records.  
20

21 Q78. What is meant by collection lag?

22 A78. The collection lag refers to the average amount of time from the date that the customer is  
23 billed to the date that the Company received payment from the customer. The calculation  
24 is based on the average daily balance in the customer accounts receivables account  
25 divided by the average daily billed revenues.  
26

27 Q79. Please summarize the calculation of revenue lag days.  
28

1 A79. The calculation of the overall revenue lag by Division or District and lag by component  
2 are summarized in Attachment 1 to my direct testimony.

3  
4 Q80. What expense-related lags were analyzed and included in the Lead Lag Study?

5 A80. Lag times associated with the following expense categories were analyzed and  
6 considered in the study: 1) employee pensions and benefits; 2) wages and salaries  
7 payroll; 3) payroll taxes; 4) fuel and power for pumping; 5) chemicals; 6) waste disposal  
8 expense; 7) purchased water; 8) rents; 9) Service Company expenses; 10) depreciation;  
9 11) Ad Valorem taxes; 12) income taxes; and 13) other operation and maintenance  
10 expenses.

11  
12 Q81. How were the expense-related lags calculated?

13 A81. For each expense category, the Company evaluated the lag for the payment for the  
14 expenses. Some of the expense transactions and/or categories involved a service period.  
15 When a service period was involved, the number of the days in the service period was  
16 divided by 2 to calculate the average service period. Then the average service period was  
17 adjusted by either the number of days before or after the service period end date for the  
18 actual payment date.

19  
20 For example, if a payment was made for services for the month of April and the actual  
21 payment date was May 20th, then the expense lag for the payment is 35 days (30 days in  
22 April divided by 2 plus the actual payment date of 20 days after the end of the service  
23 period). Another example: if a payment was made for services for the month of April  
24 and the actual payment date was April 20th, then, the expense lag for the payment would  
25 be 5 days (30 days in April divided by 2 less the actual payment date of 10 days before  
26 the end of the service period).

27  
28 Q82. How is the expense lag calculated if a service period is not involved?

1 A82. When a service period is not involved in the payment to a vendor, then the lag would  
2 simply be based on the number of days between when a company receives the goods or  
3 services from the vendor and the payment date for those goods or services. For example,  
4 if California American Water received goods or services from a vendor on March 31st  
5 and paid the invoice on May 2nd, then the expense lag would be 32 days (30 days in  
6 April and 2 days in May).

7  
8 Q83. You indicated that the Company analyzed individual transactions and payments for  
9 expenses to calculate the lag. How did California American Water use that data to  
10 calculate the total lag for a group of transactions within an expense category?

11 A83. The calculation of an expense category lag is based on multiplying the dollar amount of  
12 the expense transactions by the calculated lag for the expense transaction item to arrive at  
13 an amount labeled as “dollar days”. The total amount of the dollar days is then divided  
14 by the total amount of the actual transaction amounts to arrive at a weighted expense lag  
15 for the category.

16  
17 Q84. How did your Lead Lag Study address federal income taxes?

18 A84. The lag associated with federal income tax payments was based on the provisions of the  
19 Internal Revenue Code that require estimated tax payments of 25% of total annual  
20 income taxes due on April 15, June 15, September 15, and December 15 of the current  
21 year. Taking this schedule into consideration, the study determined that the Company  
22 had a lag time of 37.00 days for federal income tax payments.

23  
24 Q85. How did the study address state income taxes?

25 A85. State income taxes follow a pattern similar to federal taxes, but more front loaded. Thus,  
26 assuming three payments due on April 15 (30%), June 15 (40%), and December 15  
27 (30%) of the current year, the study determined an expense lag time of 20.10 days.  
28

Q86. Are there any other expense lags that you would like to address?

A86. Two expense categories require additional comment. They are depreciation expense and deferred income tax expense. These expenses are non-cash items but still require inclusion in the calculation of cash working capital using zero lag days. This approach recognizes that these two expenses occur uniformly day by day and the accumulated depreciation and deferred income tax balances are deducted from the rate base. This approach is also recommended by the Commission's SP U-16-W entitled Determination of Working Cash Allowance. In addition, the Commission recognized the use of zero lag days for depreciation expense in D.14-08-006 (San Jose Water Company's 2014 rate case).<sup>6</sup>

Q87. How is the computation of working cash allowance using the lead lag study performed for the forecast test years of 2021 and 2022?

A87. Using the forecast expense levels for each major category, the average days lag for each expense category (as discussed previously) is multiplied by the forecast total expense for the category to calculate the dollar days weighting for each category. The total of the dollar days weighting for all expense categories is then divided by the total of the forecast expense for all categories to arrive at the weighted expense lag days for all forecast expenses. This weighted expense lag is then subtracted from the revenue lag to determine the net expense lag. If this lag is positive, then positive working cash allowance is calculated and added to rate base. If the net lag is negative, then negative working cash allowance is calculated and deducted from rate base. To calculate the amount reflected in rate base, divide the total amount of the forecast expense by 365 for the average amount per day and then multiply by the weighted net expense lag days.

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<sup>6</sup> D.14-08-006, *In re Application of San Jose Water Company (U168W) for an Order Authorizing it to Increase Rates Charged for Water Service by \$47,394,000 or 21.51% in 2013, by \$12,963,000 or 4.87% in 2014, and by \$34,797,000 or 12.59% in 2015*, pp. 96-97.

1        Attachment 2 shows the calculation of the working cash allowance for 2024 and 2025 for  
2        all Districts.

3  
4        **X.        COST ALLOCATION AND RATE DESIGN MODELING**

5        **A.        General Approach and Objectives**

6        Q88. Please explain, in general terms, the global concept in the cost allocation and rate design  
7        proposals requested by California American Water in this submission.

8        A88. California American Water is generally proposing to maintain most of the structural  
9        portions of the existing rate designs in its districts. By structural portions of the rate  
10       designs for this case, I am referring to the number of blocks in the rate design, the tier  
11       break points and the general applicability of the designs to the various service areas  
12       within each Division. However, in regards to recent acquisitions, some of the structural  
13       portions of their current designs are proposed to change to continue the previous practice  
14       of moderation in changes to ultimately incorporate the acquisition customers into the  
15       rates of the historical California American Water districts. As addressed in the testimony  
16       of Jeffrey T. Linam, Section III.G, the Company's policy is to move acquired system rate  
17       design to the Divisional structure gradually over time. The proposed rate designs are  
18       consistent with that approach.

19  
20       Q89. In the previous general rate case, California American Water also proposed to maintain  
21       other portions of the rate design including the percentage of water use in the per tier and,  
22       for the most part, maintain the percentages of the revenue recovery in the fixed cost meter  
23       charge. Are you proposing to do the same in this proceeding?

24       A89. California American Water proposes changes to the percentage of the total revenue  
25       requirement collected in the monthly fixed service charge. The Company also proposes  
26       changes to the meter ratios for its non-residential customers, which will then allocate  
27       more of the fixed cost recovery to non-residential customers and reduce the recovery to  
28       the residential customers, over that which would have occurred had the meter ratios

1 remained the same for both classifications. These changes are addressed in more detail  
2 below. However, other aspects of rate design, including number of volumetric tiers, tier  
3 break points and rate differentials to the standard quantity rate are consistent with those  
4 approved in D.21-11-018, with minor exceptions. California American Water would  
5 make these proposals regardless of whether the decoupling Water Revenue Adjustment  
6 Mechanism and Modified Cost Balancing Account (“WRAM/MCBA”) mechanism that  
7 has been in place since 2008 in most California American Water districts was eliminated  
8 or not. As noted in the Direct Testimony of Jeffrey Linam, Section III. G., California  
9 American Water believes that use of the WRAM/MCBA in conjunction with  
10 conservation rates is far superior in providing cost benefits to low use and low-income  
11 customers, as well as ensuring that approved regulated costs can be most efficiently  
12 recovered.

13  
14 Q90. Please explain why California American Water proposes to make the changes to the rate  
15 design mentioned in the previous response.

16 A90. California American Water believes that the current rate design parameters effectively  
17 balance the essential needs of customers, the obligations of California American Water as  
18 the steward in the protection of a limited natural resource, and the regulatory compact  
19 providing the Company with the ability to recover its authorized revenue requirement on  
20 average over time. In D.20-08-047 the Commission ordered all regulated water utilities  
21 to propose new rate designs that would ensure that the ability of the Company reasonably  
22 recover its authorized revenue requirements with the elimination of the WRAM/MCBA  
23 and the institution of a Monterey-Style WRAM (“M-WRAM”) and Incremental Cost  
24 Balancing Account (“ICBA”). Hence, as a result of that decision California American  
25 Water has made changes to its proposed rate designs in its various service areas so it has  
26 a more reasonable ability to recover its revenue requirement, on average, over time.



1 Q91. In general terms, what changes is California American Water proposing in relation to the  
2 amount of revenue recovery through the monthly fixed meter charge?

3 A91. Generally, what California American Water is proposing is that the percentage of revenue  
4 recovered in the monthly meter charge should increase in most service areas. It should be  
5 noted that to increase the revenue collected in the monthly meter charge in each service  
6 area resulted in other slight rate design modifications depending on a number of  
7 circumstances, including the impact to low-income customers, overall rate increase on  
8 low use customers and the ability to still maintain a rate design with the intended purpose  
9 to promote general awareness of conservation needs. Additionally, and as noted above,  
10 there will be exceptions in the proposed rate designs for the more recent acquisitions to  
11 ensure moderation of the impacts when attempting divisional consolidation over time.  
12

13 Q92. Please provide a brief explanation of the distinction between a revenue requirement  
14 calculation and the rate design.

15 A92. The revenue requirement is the total amount of money the Company needs to pay all  
16 costs and earn a reasonable return of and on its investment. The level of revenue  
17 requirement is determined by the Commission. Once determined, the next step is to  
18 allocate the revenue requirement to the utility's customers through the rates they pay.  
19 This process is known as rate design, i.e., what rates or prices the Company needs to  
20 charge each customer in order to collect its revenue requirement. In this GRC  
21 application, California American Water is proposing to modify its existing rate design as  
22 provided in the below sections. The proposed rate design changes have been applied to  
23 the proposed revenues of each ratemaking area to develop the base rates included in the  
24 GRC application, proposed tariffs, and supporting reports.  
25

26 Q93. When was the last time the current rate designs for California American Water's Districts  
27 were authorized?  
28

1 A93. The current rate designs were reviewed and adopted by the Commission as part of  
2 California American Water’s 2019 GRC for the years 2021 through 2023. The new  
3 tariffs and rates were implemented on March 4, 2022.

4  
5 Q94. What other key principle has the Commission articulated around rate design?

6 A94. In 2016, the Commission issued the “Balanced Rates Decision” (D.16-12-026), which  
7 provided the following introduction:

8  
9 In light of California’s ongoing commitment to water conservation and the  
10 changed water landscape spurred by this historic period of drought, we adopt  
11 goals and objectives articulated in Attachment A to this Decision that update the  
12 water rate case plan, along with policies and methods to promote accuracy and  
13 transparency in water rates, and water service sustainability, quality, and  
14 affordability. This Decision adopts as a primary objective an emphasis on rate  
15 design that fosters safe, reliable service at just and reasonable rates for all rate  
16 payers by using principles of: flexibility to address utility and district  
17 circumstances, equity, conservation signals to promote sustainability with a  
18 directive to address outlier customer behavior, and action to increase data  
19 availability and use for customer and system use.<sup>7</sup>

20  
21 The Commission discussed several tools companies should use in their subsequent rate  
22 cases to further the goals and objectives articulated in Attachment A of the decision.<sup>8</sup>

23 Consistent with this guidance, California American Water identified several objectives as  
24 equally important in evaluating its rate design. Those objectives or goals include: 1)  
25 affordability; 2) conservation/efficient water use; 3) equity; and 4) rate clarity and  
26 simplification. In pursuit of these rate design objectives, the rate design policies

27 <sup>7</sup> D.16-12-026, p. 2.

28 <sup>8</sup> Available at <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M170/K726/170726273.PDF>.

1 articulated in the Direct Testimony of Jeffrey Linam, Section III.G. and including the  
2 Company's proposed cost allocation and consolidation requests, California American  
3 Water believes that: 1) these changes should be made gradually so that customers can  
4 adapt over time to the adjusted price signals; 2) the break points for the residential  
5 inclining block rates should be updated, if necessary, using current water usage patterns;  
6 and 3) greater revenue recovery should be shifted from commodity rates to service  
7 charges to better align with California American Water's high fixed costs.  
8

9 Q95. How did California American Water develop the revenue requirement applicable to  
10 general metered rates?

11 A95. The revenue requirement for general metered rates was developed by subtracting from  
12 each district's overall revenue requirement all revenue proposed to be generated by: 1)  
13 private fire hydrants and services; 2) insufficient fund checks and other instruments; 3)  
14 reconnection charges; 4) the appropriate level of revenue from non-tariff products and  
15 services; 5) Method 5 revenues; and 6) any other revenue that is not appropriately  
16 considered as general metered services.  
17

18 Q96. Was there any other change in the development of the revenue requirements on a  
19 divisional/district basis?

20 A96. Yes, as is noted in Q&A 101 below, we have proposed to collect a 50% portion of the  
21 revenue requirement of net T&D plant assets to be collected on a customer basis across  
22 all divisions. This allocation of T&D net plant assets is to ensure rate stabilization of net  
23 assets that are common among all customers. For more details on this proposal please see  
24 the testimony of Jeffrey Linam at Section IV.D.  
25

26 Q97. Please define what a rate differential is in the context of the conservation rate design  
27 proposed in your testimony.  
28

1 A97. A rate differential is how much higher or lower a price is in relation to another price in  
2 terms of percentage. For example, if rate A = \$1.00 and rate B = \$1.05, the rate  
3 differential for rate B in comparison to rate A is 105%. If rate C = \$0.90, the differential  
4 would be 90% of rate A. In this context, rate A is also known as the “base rate”, because  
5 all other rates are based on this price.

6  
7 The intent of the rates is to recover the overall revenue requirement, however, since the  
8 recovery is based on estimated customers and average estimated water use by each  
9 customer, and rates will actually recover revenue based on actual use and actual  
10 customers, the actual revenue requirement collected will not match exactly the estimated  
11 revenue requirement.

12  
13 **B. Rate Design Strategy – M-Cubed**

14 Q98. California American Water hired economic and public policy consultants, M-Cubed, to  
15 develop various rate design scenarios. Why did California American Water hire M-  
16 Cubed to develop rate design scenarios and provide testimony in this application?

17 A98. M-Cubed has expertise addressing rate design issues for other utilities. The decision to  
18 hire M-Cubed and additional information is provided in the testimony of Jeffrey Linam in  
19 Section VI.

20  
21 Q99. What areas of rate design did M-Cubed focus on and how does your testimony coordinate  
22 with that of M-Cubed?

23 A99. I provided to David Mitchell of M-Cubed, the historical customer data necessary to  
24 establish both the sales forecast and the rate design scenarios. Also provided to M-Cubed  
25 were various parameter expectations that needed to be considered regarding what  
26 percentage of revenue should be collected in the service charges and various quartile  
27 impact variations. M-Cubed analyzed and presented various rate design scenarios that  
28 informed the rate design recommendations listed below. M-Cubed developed a series of

1 Technical Memorandum (“TMs”) that are attached to the testimony of David Mitchell as  
2 Attachment 3 (the “Rate Design Report”): (1) Southern Division TM; (2) Central  
3 Division TM #1, (3) Central Division TM #2, (4) Northern Division TM #1, and (5)  
4 Northern Division TM #2.

5  
6 Q100. Is California American Water proposing any changes to the CAP discount for its districts  
7 based on the rate design policies outlined in the Direct Testimony of Jeffrey Linam,  
8 Section III.G?

9 A100. Yes. The stated policy objective was to increase the CAP discount to eliminate any  
10 impact of the proposed change in the meter charges for the Company’s low-income  
11 customers. To ensure the objectives are met, the proposed CAP discount would increase  
12 to 25% for all districts for across the state, with the exception of Monterey where  
13 California American Water proposes to increase it to 35% for the Monterey County  
14 service area water customers.

15  
16 **C. General Revenue Requirement Allocations Applicable to All Service Areas.**

17 Q101. Is California American Water proposing global considerations for revenue consolidations  
18 and/or global proposals for rate designs?

19 A101. Yes, there are three such items contained in proposals in this application. The first is to  
20 standardize, for the most part, the percent of fixed costs to be recovered in the monthly  
21 meter charges to fifty percent. This proposal would be applicable to all service areas  
22 except the Central Satellite systems in the Central Division. The percent of the fixed cost  
23 recovery in the meter charge is proposed to be set at 50% of fixed cost recovery for all  
24 service areas except it is proposed to be set at 35% for the Central Satellite systems,  
25 rather than at 50%. This proposal is explained in the Direct Testimony of Jeffrey Linam  
26 at Section III.G.

1 The second general global item is that we are proposing to increase the fixed cost service  
2 charge revenue collected from non-residential customers and reduce the amount collected  
3 from residential customers. The Company is requesting that the monthly fixed charge  
4 rate for meter size for non-residential customers be set at a 50% percent higher monthly  
5 rate than the equivalent size meter rate for residential customers, which is explained  
6 below. This proposal is further explained in the Direct Testimony of Jeffrey Linam at  
7 Section III.G.

8  
9 The third general global item that is requested is the consolidation of 50% of the revenue  
10 requirement of all transmission and distribution (“T&D”) net plant assets recovered  
11 across the present Divisional rates and reallocation of that revenue requirement based on  
12 number of customers. This proposal is fully detailed and explained in the testimony of  
13 Jeffrey Linam at Section IV.D.

14  
15 **D. Rate Design Plan – Central Division**

16 Q102. Please discuss the rate design plan for the Monterey County District Single-Family and  
17 Multi-Family Customers.

18 A102. There are two distinct tariff areas within the Central Division – the Monterey Service  
19 Area and the Central Satellites. The tariff for Central Satellites also includes our Chualar  
20 service area.

21  
22 **1. Monterey Service Area – Residential Customers**

23 Q103. Please explain how the Pure Water Monterey costs will be recovered through rates  
24 charged to customers.

25 A103. California American Water is proposing to continue the current methodology of applying  
26 a single flat surcharge for each unit of water used for all residential and non-residential  
27 customers in the Monterey County systems.  
28

1 Monterey Service Area<sup>9</sup> (Residential – Block Width & Tier Ratios) -- California

2 American Water proposes in this GRC to maintain the current four tier rate design for its  
3 residential single-family and residential multi-family tariff. D.21-11-018 approved the  
4 settlements to eliminate the fifth tier, which contained very little usage. The current price  
5 signal from the fourth tier is 6.0 times the Tier 1 rates. California American Water is not  
6 proposing to make any changes to the existing single-family block widths. California  
7 American Water also is proposing to not make any changes with respect to the tier ratios,  
8 or as referred to in Attachment 3 to the Direct Testimony of David Mitchell as the  
9 percentage step up in the commodity charge. The current ratios for tiers 1 through 4 are  
10 1.0, 1.5, 4.0 and 6.0, respectively, and are proposed to remain as they currently exist.

11  
12 Monterey Service Area (Residential – Meter Ratios) – In the Monterey Rate Design  
13 proceeding (A.15-07-019), the Commission authorized California American Water to  
14 alter the standard meter ratios<sup>10</sup> for residential customers in the Monterey Service Area to  
15 ensure that lower-use customers were not disproportionately affected by the overall  
16 change in rate design. Ordering Paragraph #3 of D.16-12-003 discusses the possible  
17 elimination of the temporary modification to the standard residential meter ratios for the  
18 Monterey Service Area for recovery of the increased percentage of fixed costs in the  
19 residential monthly service charge. D.21-11-024 approved California American Water’s  
20 proposal to close the gap by 50% between the current ratio used to develop the meters  
21 rates and standard residential meter ratios. This adjustment had a small impact on the  
22 5/8” meter customers. California American Water is proposing to close the gap by 50%  
23 of the remaining 50% gap in this GRC and will consider whether to remove the

24  
25  
26 <sup>9</sup> The Monterey Service Area refers to the Monterey Main, Bishop, Hidden Hills and Ryan Ranch service  
27 areas, which is a separate tariff area from the Central Satellites. The Central Satellites include Ambler,  
28 Toro, Ralph Lane, and Garrapata.

<sup>10</sup> The standard meter ratios are normally used to set the rate differential between the various meter sizes.  
The meter ratios are set by the meter sizes ability to flow water through the size of meter.

1 remaining 25% gap in the subsequent GRC. Additionally, California American Water  
2 proposes to set the meter charge to recover 50% of the revenue requirement.  
3

## 4 **2. Monterey Service Area– Non- Residential Customers**

5 Q104. Please discuss the rate design plan for the Monterey Service Area Non-Residential  
6 customers.

7 A104. California American Water is not proposing changes to the current rate design parameters  
8 for non-residential customers. The rate design updates rates based on customers and  
9 usage in each of the four divisions, based on their compliance with best management  
10 practices (“BMPs”). Additionally, in setting the non-residential and residential rates for  
11 the Monterey Service Area, California American Water maintained the existing cost  
12 allocation subsidy from non-residential to residential customers as reflected in D.16-12-  
13 003. Specifically, D.16-12-003, Conclusion of Law 23 states, “Cost recovery should be  
14 realigned by moving 8.4 percent (about three million dollars) from residential to non  
15 residential customers in order to promote equity as one factor among several in  
16 considering cost recovery, revenue responsibilities, and rate design.” The meter charge  
17 for commercial customers was increased to recover 50% of fixed costs.  
18

## 19 **3. Monterey Service Area – Meter Revenue Recovery Between** 20 **Residential and Non-Residential Customers**

21 Q105. Please describe the proposed relationship between the monthly meter rates for residential  
22 and non-residential customers for the Monterey Service Area.

23 A105. As with all the systems in California American Water, we are proposing that the monthly  
24 meter-based service fees be set at 50% higher for non-residential customers than the level  
25 set for residential customers. This proposal is to offset the impact of recovering more of  
26 the overall revenue requirement for fixed monthly fees. Further explanation of this  
27 proposal is in the Direct Testimony of Jeffrey Linam at Section III.G.  
28



1                                   **4.       Central Satellites**

2 Q106. Please discuss the rate design plan for the Central Satellites. Is California American  
3 Water proposing to make any changes to the rate designs for the Central Satellites?

4 A106. Central Satellites – California American Water is proposing only one change to the rate  
5 design parameters for the Central Satellites. The proposed change is to ensure that  
6 approximately 5% of water sales from these systems will be billed in tier 4. This is to  
7 approximate the level of water billed in the final tier category in most of our other  
8 systems. D.18-12-021 approved the rate design consolidation of the Ambler, Toro, Ralph  
9 Lane, and Garrapata satellite systems onto a single tariff for ratemaking purposes. The  
10 revenue requirement for the Central Satellites and Chualar has been calculated by  
11 applying the current inflation rate of 8.3% to the present rate revenues to calculate the  
12 proposed revenue requirement. The calculated proposed revenue is then set as the  
13 revenue requirement for the present rate design model to determine the new proposed  
14 rates. This will better align the revenue requirement increases for these systems that are  
15 likely driven more by inflationary increases.<sup>11</sup>

16  
17                                   **5.       Monterey Wastewater District**

18 Q107. Please discuss the rate design plan for the Monterey Wastewater customers. Is California  
19 American Water proposing to make any changes to the cost allocation or rate designs for  
20 active or passive wastewater customer in Monterey County?

21 A107. California American Water is not proposing to make changes to the existing rate design  
22 for its Monterey Wastewater customers in this proceeding. However, as stated in the  
23 Direct Testimony of Jeffrey T. Linam, Special Request #18, Section IV.M, California  
24 American Water proposes to phase in the rate increase over the three-year GRC cycle to  
25 moderate the rate impact. California American Water continues to maintain separation  
26

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27 <sup>11</sup> The revenue requirement was escalated based on the CPI-All Urban Consumers, all items, San  
28 Francisco, Oakland, Hayward, California based on a five-year average 2017-2021. Series  
CUURS49BSA0, CUUSS49BSA0.

1 of its Monterey Wastewater District into two systems, with a separate passive and active  
2 revenue requirement.

3  
4 **E. Rate Design Plan – Southern Division**

5 Q108. Please explain any proposed changes from the current rate design for the Southern  
6 Division requested in this rate case.

7 A108. California American Water proposes to increase the fixed costs recovered in the meter  
8 charge for San Diego County, Los Angeles County and Ventura County Districts. For  
9 the Southern Division, California American Water recommends setting the meter charge  
10 to collect 50% of the revenue requirement, which is consistent with the proposal for the  
11 Central and Northern Divisions. California American Water also proposes to slightly  
12 change the variable costs consolidated for the San Diego County district to 35%.

13  
14 Q109. What is California American Water's proposal for the acquisitions of the East Pasadena,  
15 Bellflower and Warring systems in Southern California?

16 A109. California American Water proposes to consolidate the revenue requirement for these  
17 three acquisitions but maintain separate rate designs and rates for each system. The  
18 Company proposes to slowly transition the rate designs to the Southern Division rates  
19 and tariffs. Further details are provided below.

20  
21 **1. East Pasadena**

22 Q110. How did you determine the level of consumption and consumption by tier for the East  
23 Pasadena System?

24 A110. California American Water based its consumption forecast on data from the acquired  
25 utility. This information was then used to determine total customer usage for the Test  
26 Year. East Pasadena currently has only one tier and California American Water proposes  
27 to move it to three tiers. For distribution of the total projected usage over the proposed  
28 three tiers, we have used the same usage by tier percentage as in the San Marino system

1 to distribute the usage to three tiers. Since San Marino has a four tier design and  
2 California American Water is proposing a three tier design for East Pasadena, tier 1 in  
3 East Pasadena is set at the same percentage of usage as tier 2 in San Marino, with tier 3  
4 usage in San Marino equal to the tier 2 usage in East Pasadena, and all remaining  
5 consumption for East Pasadena in tier 3, which is equivalent to tier 4 in San Marino. The  
6 rate design is based overall on the consolidated Southern Division tier break points.

7  
8 Q111. How do you propose to establish the rates for the East Pasadena system?

9 A111. For East Pasadena we escalated the present rate revenues by the overall proposed  
10 percentage increase for the Southern Division and then ran that revenue requirement  
11 through the proposed rate design to establish the proposed rates. For the meter charges,  
12 we used the same rates as proposed for the rest of the Southern Division.

13  
14 **2. Bellflower**

15 Q112. How did you determine the level of consumption and consumption by tier for the  
16 Bellflower System?

17 A112. For the recent acquisitions, including Bellflower, California American Water based its  
18 consumption forecast on data from the acquired utility. This information was then used to  
19 determine total customer usage for the Test Year. For distribution of that total projected  
20 usage over the proposed three tiers, we have used the same usage distribution by tier as in  
21 the Baldwin Hills system to distribute the usage to the Bellflower proposed three tiers,

22  
23 Q113. How did you proposed to establish the rates for the Bellflower system?

24 A113. To develop the rates for the proposed three tier rate design, we set the tier break points at  
25 the same points as the Southern Division. We used the proposed meter charges for the  
26 Southern Division and then ran the consumption through the rate model to establish the  
27 proposed rates. To set the revenue requirement, we escalated the current revenue  
28 requirement by the overall percentage increase for the Southern Division.

1                               **3.       Warring**

2 Q114. How did you determine the level of consumption and consumption by tier for the  
3       Warring System?

4 A114. California American Water based its consumption forecast, including the average usage  
5       per customer for the Warring system on information provided by the acquired system. It  
6       was then used to determine total customer usage for the Test Year. To distribute the total  
7       projected usage over the proposed two tiers for Warring, we have used the same usage  
8       distribution by tier as projected in the consolidated Southern Division.

9  
10 Q115. How did you propose to establish the rates for the Warring system?

11 A115. To develop the rates for the proposed two-tier rate design, we set the tier break point at  
12       the same point as the Southern Division tier three. We used the proposed meter charges  
13       for the Southern Division and then ran the consumption through the rate model to  
14       establish the proposed rates. To set the revenue requirement, we escalated the current  
15       revenue requirement by the overall percentage increase for the Southern Division.

16  
17                               **F.       Rate Design Plan –Northern Division**

18 Q116. Please explain the rate design plan for the Sacramento District.

19 A116. California American Water is not proposing to change any of the rate design parameters  
20       for the Sacramento or Larkfield districts, all within the Northern Division tariff, except  
21       the recovery of 50% of fixed costs through the monthly fixed fee meter charge.  
22       Consistent with the proposals in the other Divisions, California American Water is  
23       proposing to increase the meter charge in the Northern Division to recover 50% of fixed  
24       costs.

25  
26 Q117. Please explain the current residential rate design for the Larkfield District.

27 A117. California American Water proposes to increase the revenue requirement in the Larkfield  
28       service area from the current \$3,116,374 to \$3,750,000. This proposed increase is to

1 ensure that the rates charged for service in Larkfield do not decrease as a result of  
2 increased consumption that occurred as a result of returning customers after the 2017 fire.  
3 It would be imprudent in a Sonoma County service area where water supply is  
4 constrained to allow rates charged for service to decline because that would probably  
5 result in an increase in consumption. California American Water does not propose any  
6 change the rate design parameters for the Larkfield District in this application.  
7

8 **G. Northern Division Acquisitions**

9 Q118. There have been a number of acquisitions in the Northern Division over the past 10 years.  
10 Are you proposing that any of these acquisitions remain on separate tariffs from the  
11 Sacramento system tariff?

12 A118. Yes, we are proposing that two acquired systems, in addition to Larkfield, remain on  
13 individual tariffs. Those two systems are Meadowbrook and Bass Lake. Bass Lake is not  
14 presently authorized for acquisition, but we anticipate the completion of the acquisition  
15 before a decision is rendered in this GRC. Below I will summarize the proposed rate  
16 treatment for these two acquisitions. While Fruitridge has been held on a separate tariff  
17 to date, I am proposing that the Fruitridge customers be folded into the Sacramento tariff  
18 at the beginning of the Test Year. The remaining flat rate customers will be folded into  
19 the Sacramento rate tariff as they are converted to meters in accordance with the current  
20 process.  
21

22 **1. Meadowbrook**

23 Q119. What are you proposing for the Meadowbrook system?

24 A119. I am proposing that the revenue requirement for the Meadowbrook system be established  
25 by simply escalating the amount authorized in the 2022 Step Rate filing by the percentage  
26 revenue increase in the overall Northern Division. This increased revenue would then be  
27 used to develop the proposed rates using the current rate design and rate model.  
28

1                               **2.       Bass Lake**

2   Q120. What are you proposing for the Bass Lake system?

3   A120. I am proposing that the rates for the Bass Lake system be established by simply inflating  
4       present rates by the CPI inflation rate of 8.3%. This proposal to inflate the current rates  
5       is necessary since there is a shortage of accurate records for the system and to allow time  
6       for more in-depth evaluation after the acquisition is complete. There is not information  
7       available to determine the actual cost of service at this time. Since most costs should on  
8       average inflate at the CPI rate, it makes common sense to them assume that rates would  
9       need to go up at least by the CPI inflation increment.

10  
11                           **H.       Rate Design Attachment 3**

12   Q121. Have you included as an attachment to this testimony any tables, schedules or other  
13       information to provide further details on the rate design proposals made in this  
14       testimony?

15   A121. Yes, included as Attachment 3 to this testimony are a number of tables with explanatory  
16       notes intended to provide numerical examples of my rate design and other rate and  
17       revenue requirement impacts. Attachment 3 provides the impact of the T&D net plant  
18       consolidation as well as the examples of how the proposal to increase the percent  
19       recovery of fixed costs in the monthly meter fee will impact bills both on a percentage  
20       and dollar basis. Most of the tables in Attachment 3 provide details of the revenue  
21       impacts by customer classification and well as average bill impacts by district by  
22       customer classification. The tables are all footnoted to ensure that the reader can easily  
23       interpret what is being provided.

24  
25   Q122. Does this conclude your testimony?

26   A122. Yes, it does.  
27  
28

# ATTACHMENT 1

California American Water  
Calculation of Revenue Lag for Lead Lag Study  
All Districts - 2022 General Rate Case  
Study Period: Twelve Months Ended September 2021

Attachment 1  
Pourtaherian

Filing Type: Proposed

	District Name ----->	CAW Corporate	San Diego County District	Monterey County District	Monterey Wastewater	Los Angeles County District	Ventura County District	Sacramento District	Larkfield District	Southern Division	Northern Division	Central Division
Description of Calculations	District # -->	1501	1530	1540	1542	1550	1551	1560	1561	1595	1596	1597
<b>REVENUE LAG</b>		0.00	47.83	62.22	76.94	48.36	41.24	55.87	56.26	45.50	55.88	62.22
Service Lag + Billing Lag + Payment Lag												
<b>Service Lag</b>												
# Days in Year	a		365	365	365	365	365	365	365	365	365	365
# Billing Periods in Year	b		12	12	12	12	12	12	12	12	12	12
Calculation for Average Period	c		2	2	2	2	2	2	2	2	2	2
Average Service Lag (a / b / c)			15.21	15.21	15.21	15.21	15.21	15.21	15.21	15.21	15.21	15.21
<b>Billing Lag</b>												
Sum of Billing Lag x Billed Amount	d		11,977,967	29,585,253	512,812	8,161,171	15,608,886	19,930,399	2,024,213	35,748,025	21,954,612	29,585,253
Sum Total of Billed Dollars	e		3,196,233	9,385,978	275,179	2,034,107	4,403,140	6,558,122	324,361	9,633,480	6,882,483	9,385,978
Average Billing Lag (d / e)			3.75	3.15	1.86	4.01	3.54	3.04	6.24	3.71	3.19	3.15
<b>Payment Lag</b>												
Average A/R Balance	f		2,534,787	8,771,368	538,182	3,163,467	2,620,618	6,365,466	307,321	8,318,872	6,672,786	8,771,368
Less: Avg Uncollectible (i / k)	g		0	0	0	0	0	0	0	0	0	0
Net Average Balance (f - g)	h		2,534,787	8,771,368	538,182	3,163,467	2,620,618	6,365,466	307,321	8,318,872	6,672,786	8,771,368
Uncollectibles in A/R	i		0	0	0	0	0	0	0	0	0	0
Total Billed Revenues	j		32,037,072	73,003,674	3,281,290	39,628,716	42,546,113	61,758,701	3,222,601	114,211,901	64,981,302	73,003,674
# Days in Period	k		365	365	365	365	365	365	365	365	365	365
Average Billed Revenues (j / k)	l		87,773	200,010	8,990	108,572	116,565	169,202	8,829	312,909	178,031	200,010
Average Payment Lag (h / l)			28.88	43.85	59.87	29.14	22.48	37.62	34.81	26.59	37.48	43.85

End	End	End	End	End	End	End	End	End	End	End	End	End
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



# ATTACHMENT 2

California American Water  
Working Cash Calculation  
All Districts - 2022 General Rate Case

Filing Type: Final

District # and Name -->	1542	Monterey Wastewater			1595	Southern Division		
Description	2022	2023	2024	2025	2022	2023	2024	2025
Total Revenue Lag Days	76.9	76.9	76.9	76.9	45.5	45.5	45.5	45.5
Total Expense Lag Days	15.2	15.9	17.3	17.4	26.7	25.0	24.4	24.0
Net Lag Days	61.8	61.0	59.6	59.5	18.8	20.5	21.1	21.5
Daily Expense Requirement	\$9,948.3	\$10,200.1	\$10,963.2	\$11,302.4	\$296,718.1	\$303,271.5	\$327,936.0	\$339,793.7
District-Year Identifier	1542-2022	1542-2023	1542-2024	1542-2025	1595-2022	1595-2023	1595-2024	1595-2025
Working Cash Requirement	\$614,617	\$622,196	\$653,662	\$672,642	\$5,588,961	\$6,222,970	\$6,934,470	\$7,293,217
End	End	End	End	End	End	End	End	End

California American Water  
Working Cash Calculation  
All Districts - 2022 General Rate Case

Filing Type: Final

District # and Name -->	1596	Northern Division			1597	Central Division		
Description	2022	2023	2024	2025	2022	2023	2024	2025
Total Revenue Lag Days	55.9	55.9	55.9	55.9	62.2	62.2	62.2	62.2
Total Expense Lag Days	13.1	12.8	12.7	12.6	19.2	18.0	16.0	16.0
Net Lag Days	42.8	43.1	43.1	43.3	43.1	44.3	46.2	46.2
Daily Expense Requirement	\$160,114.6	\$165,315.2	\$195,049.4	\$211,354.9	\$165,682.6	\$169,315.0	\$194,320.2	\$201,873.0
District-Year Identifier	1596-2022	1596-2023	1596-2024	1596-2025	1597-2022	1597-2023	1597-2024	1597-2025
Working Cash Requirement	\$6,849,313	\$7,128,852	\$8,413,963	\$9,146,413	\$7,132,938	\$7,493,009	\$8,974,847	\$9,321,832
End	End	End	End	End	End	End	End	End

# ATTACHMENT 3

2022 General Rate Case (A.22-07-00_)					
Cost Allocation -- Consolidation of T&D Assets					
<b>Table 1</b>					
Test Year					
District	Special Request #4 Reduction of T&D Consolidation (\$000)	Special Request #4 Addition of T&D Consolidation (\$000)	Special Request #4 Net Impact (\$000)		
Northern Division	(6,083.4)	6,763.5	680.1		
Central Division	(5,165.5)	3,715.7	(1,449.8)		
Southern Division	(6,298.2)	7,067.9	769.7		
Escalation and Attrition Year					
District	Special Request #4 Reduction of T&D Consolidation (\$000)	Special Request #4 Addition of T&D Consolidation (\$000)	Special Request #4 Net Impact (\$000)		
Northern Division	(13,184.5)	14,680.7	1,496.2		
Central Division	(10,999.0)	8,065.2	(2,933.8)		
Southern Division	(13,903.9)	15,341.5	1,437.5		
2022 General Rate Case (A.22-07-00_)					
Cost Allocation -- Exemplary Meter Equivalent Calculation (Sacramento District)					

<b>Table 2</b>					
Description	Water & RFS Meter Sizes	Standard Rates TY2024	Conservation Rates TY2024 Residential	Conservation Rates TY2024 Non- Residential	Conservation Rates TY2024 RFS
Customers by Meter Size					
	5/8 x 3/4"	57,679	56,735	944	
	3/4"	1,464	1,262	202	
	1"	2,520	756	1,764	
	1-1/2"	965	113	852	
	2"	2,314	26	2,288	
	3"	78	0	78	
	4"	84	0	84	
	6"	29	0	29	
	8"	9	0	9	
	10"	2	0	2	
	5/8 x 3/4" RES to 1" RES MFS	2,765			2,765
	5/8 x 3/4" RES to 1-1/2" RES MFS	9			9
	5/8 x 3/4" RES to 2" RES MFS	0			0
	3/4" RES to 1" RES MFS	0			0
	3/4" RES to 1-1/2" RES MFS	0			0
	3/4" RES to 2" RES MFS	0			0
	1" RES to 1-1/2" RES MFS	0			0
	1" RES to 2" RES MFS	0			0
	1-1/2" RES to 2" RES MFS	0			0
		0			
<b>TOTAL Average Customers</b>		<b>65,144</b>	<b>58,892</b>	<b>6,252</b>	<b>2,774</b>

Meter Equivalents by Meter Size <sup>(1) (2)</sup>					
	5/8 x 3/4"	1	1	1.5	
	3/4"	1.5	1.5	2.3	
	1"	2.5	2.5	3.8	
	1-1/2"	5	5	7.5	
	2"	8	8	12.0	
	3"	15	15	22.5	
	4"	25	25	37.5	
	6"	50	50	75.0	
	8"	80	80	120.0	
	10"	115	115	172.5	
	5/8 x 3/4" RES to 1" RES MFS				1.8
	5/8 x 3/4" RES to 1-1/2" RES MFS				3.0
	5/8 x 3/4" RES to 2" RES MFS				4.5
	3/4" RES to 1" RES MFS				2.0
	3/4" RES to 1-1/2" RES MFS				3.3
	3/4" RES to 2" RES MFS				4.8
	1" RES to 1-1/2" RES MFS				3.8
	1" RES to 2" RES MFS				5.3
	1-1/2" RES to 2" RES MFS				6.5
Notes (1) The RFS meter ratios approved in D.21-11-024 are proposed in the 2022 GRC to mitigate impacts to the higher meter sizes installed for RFS customers.					
(2) A ratio of 1.5 was applied to the residential standard meter charge in order to determine the non-residential meter charge.					
This was a standard assumption applied to all districts.					

<b>Total Meter Equivalents</b>					
	5/8 x 3/4"	57,679	56,735	1,416	0
	3/4"	2,196	1,893	455	0
	1"	6,300	1,890	6,615	0
	1-1/2"	4,825	565	6,390	0
	2"	18,512	208	27,456	0
	3"	1,170	0	1,755	0
	4"	2,100	0	3,150	0
	6"	1,450	0	2,175	0
	8"	720	0	1,080	0
	10"	230	0	345	0
	5/8 x 3/4" RES to 1" RES MFS	0	0	0	4,839
	5/8 x 3/4" RES to 1-1/2" RES MFS	0	0	0	27
	5/8 x 3/4" RES to 2" RES MFS	0	0	0	0
	3/4" RES to 1" RES MFS	0	0	0	0
	3/4" RES to 1-1/2" RES MFS	0	0	0	0
	3/4" RES to 2" RES MFS	0	0	0	0
	1" RES to 1-1/2" RES MFS	0	0	0	0
	1" RES to 2" RES MFS	0	0	0	0
	1-1/2" RES to 2" RES MFS	0	0	0	0
<b>TOTAL</b>		<b>95,182</b>	<b>61,291</b>	<b>50,837</b>	<b>4,866</b>
Total Conservation Meter Equivalent			116,994		
Total Service Charge Revenue Necessary (\$1,000's)		\$43,023	\$43,022.60		
Annual Cost per Meter Equivalent		\$452	\$367.73		
Monthly Meter Equivalent Cost		\$37.67	\$30.64	\$30.64	\$30.64



<b>SERVICE CHARGE RATE BY METER SIZE</b>					
	5/8 x 3/4"	\$37.67	\$30.64	\$45.97	\$0.00
	3/4"	\$56.50	\$45.97	\$68.95	\$0.00
	1"	\$94.17	\$76.61	\$114.92	\$0.00
	1-1/2"	\$188.33	\$153.22	\$229.83	\$0.00
	2"	\$301.34	\$245.16	\$367.73	\$0.00
	3"	\$565.00	\$459.67	\$689.50	\$0.00
	4"	\$941.67	\$766.11	\$1,149.17	\$0.00
	6"	\$1,883.35	\$1,532.22	\$2,298.33	\$0.00
	8"	\$3,013.36	\$2,451.56	\$3,677.33	\$0.00
	10"	\$4,331.70	\$3,524.11	\$5,286.17	\$0.00
	5/8 x 3/4" RES to 1" RES MFS	\$0.00	\$0.00	\$0.00	\$53.63
	5/8 x 3/4" RES to 1-1/2" RES MFS	\$0.00	\$0.00	\$0.00	\$91.93
	5/8 x 3/4" RES to 2" RES MFS	\$0.00	\$0.00	\$0.00	\$137.90
	3/4" RES to 1" RES MFS	\$0.00	\$0.00	\$0.00	\$61.29
	3/4" RES to 1-1/2" RES MFS	\$0.00	\$0.00	\$0.00	\$99.59
	3/4" RES to 2" RES MFS	\$0.00	\$0.00	\$0.00	\$145.56
	1" RES to 1-1/2" RES MFS	\$0.00	\$0.00	\$0.00	\$114.92
	1" RES to 2" RES MFS	\$0.00	\$0.00	\$0.00	\$160.88
	1-1/2" RES to 2" RES MFS	\$0.00	\$0.00	\$0.00	\$199.19

2022 General Rate Case (A.22-07-00\_)  
Monterey District  
Table 1  
Proposed Meter Ratios -- Single Family

Meter Size	D.86-05-064 Ratio	D.16-12-003 Ratio	D.21-11-018 Ratio	Proposed Ratio 2022 GRC
5/8"	1.0	1.0	1.0	1.0
3/4"	1.5	1.8	1.6	1.6
1"	2.5	3.5	3.0	2.7
1 1/2"	5.0	11.0	8.0	6.5
2"	8.0	18.7	13.4	10.7
3"	15.0	35.1	25.1	20.0
4"	25.0	61.4	43.2	34.1
6"	50.0	131.6	90.8	70.4
8"	80.0	210.6	145.3	112.7

2022 General Rate Case (A.22-07-00\_)  
Monterey District  
Table 2  
Current and Proposed Percentage Step Ups in Commodity Charge -- Single Family

Tier	Current Ratio	Proposed Ratio
1	1.00	1.500
2	1.50	3.000
3	4.00	4.500
4	6.00	625.0%
5	N/A	N/A

2022 General Rate Case (A.22-07-00\_)  
Monterey District  
Table 3  
Impact of Proposal on Tier Rates -- Single Family

Tier	Tens of cfs		CGLs	
	Current	Proposed	Current	Proposed
1	\$1.1100	\$0.9173	\$1.4840	\$1.2263
2	\$1.5019	\$1.4981	\$2.0078	\$2.0029
3	\$3.4609	\$2.0790	\$4.6268	\$2.7794
4	\$5.0280	\$2.7567	\$6.7220	\$3.6855
5	\$0.0000	N/A	\$0.0000	N/A

2022 General Rate Case (A.22-07-00\_)  
Monterey District  
Table 4  
Summary of Changes to Single Family Residential Rates -- Single Family

	Current				Proposed				
	2021 Usage (Authorized)	% of Authorized Usage	Tier Width (CGLs)	Tier Endpoint (CGLs)	2024 Usage (Proposed)	% of Proposed Usage	Proposed Tier Width	Proposed % Step Up in Commodity Rate	Proposed Base Rate (\$/CGLs)
Tier 1	9,478,157	62.9%	29.9	29.9	8,016,972	58.01%	30	-17.4%	\$1.2263
Tier 2	3,390,438	22.5%	29.9	59.8	3,323,690	24.05%	30	-0.2%	\$2.0029
Tier 3	1,416,450	9.4%	54.5	114.3	1,597,503	11.56%	54	-39.9%	\$2.7794
Tier 4	783,568	5.2%	N/A	N/A	881,704	6.38%	N/A	-45.2%	\$3.6855

2022 General Rate Case (A.22-07-00\_)  
Monterey District  
Table 5  
Proposed Meter Ratios -- Multi-Family

Meter Size	D.86-05-064 Ratio	D.16-12-003 Ratio	D.21-11-018 Ratio	Proposed Ratio 2022 GRC
5/8"	1.0	1.0	1.00	1.00
3/4"	1.5	1.8	1.63	1.56
1"	2.5	3.5	3.00	2.75
1 1/2"	5.0	11.0	7.99	6.49
2"	8.0	18.7	13.36	10.68
3"	15.0	35.1	25.05	20.03
4"	25.0	61.4	43.22	34.11
6"	50.0	131.6	90.82	70.41
8"	80.0	210.6	145.31	112.66

2022 General Rate Case (A.22-07-00\_)  
Monterey District  
Table 6  
Current and Proposed Percentage Step Ups in Commodity Charge -- Multi-Family

Tier	Current Ratio	Proposed Ratio
1	1.00	1.00
2	1.50	2.00
3	4.00	4.50
4	6.00	6.25
5	N/A	N/A

2022 General Rate Case (A.22-07-00\_)  
Monterey District  
Table 7  
Impact of Proposal on Tier Rates -- Multi-Family

Tier	Tens of cfs		CGLs	
	Current	Proposed	Current	Proposed
1	\$0.9294	\$1.0399	\$1.2425	\$1.3902
2	\$1.2308	\$1.7434	\$1.6454	\$2.3308
3	\$2.7380	\$3.5023	\$3.6605	\$4.6822
4	\$3.9439	\$4.7335	\$5.2726	\$6.3282
5	\$0.0000	N/A	\$0.0000	N/A

2022 General Rate Case (A.22-07-00\_)  
Monterey District  
Table 8  
Summary of Changes to Multi-Family Residential Rates

	Current				Proposed				
	2021 Usage (Authorized)	% of Authoirzed Usage	Tier Width (CGLs)	Tier Endpoint (CGLs)	2024 Usage (Proposed)	% of Proposed Usage	ProposedTier Width	Proposed % Step Up in Commodity Rate	Proposed Base Rate (\$/CGLs)
Tier 1	2,278,929	62.8%	18.7	18.7	2,371,111	68.93%	19	11.9%	\$1.3902
Tier 2	928,990	25.6%	18.7	37.4	852,612	24.79%	19	41.7%	\$2.3308
Tier 3	206,845	5.7%	13.5	50.9	121,595	3.53%	13	27.9%	\$4.6822
Tier 4	214,103	5.9%	N/A	N/A	94,697	2.75%	N/A	20.0%	\$6.3282

2022 General Rate Case (A.22-07-00\_)  
Monterey District  
Table 5  
Proposed Meter Ratios -- Non-Residential

Meter Size	D.86-05-064 Ratio	Proposed Ratio 2022 GRC
5/8"	1.0	1.50
3/4"	1.5	2.34
1"	2.5	4.12
1 1/2"	5.0	9.74
2"	8.0	16.02
3"	15.0	30.04
4"	25.0	51.16
6"	50.0	105.62
8"	80.0	168.98

2022 General Rate Case (A.22-07-00\_)  
Monterey District  
Table 9  
Summary of Changes to Non-Residential Customer Rates

	Current			Proposed		
	2021 Usage (Authorized)	% of Authoirzed Usage	Present Volumetric Rates (\$/CGLs)	2024 Usage (Proposed)	% of Proposed Usage	Proposed Volumetric Rates (\$/CGLs)
Division 1	6,639,282	68.6%	\$2.3335	6,942,431	70.3%	\$2.3897
Division 2	599,979	6.2%	\$2.5706	571,290	5.8%	\$2.6322
Division 3	2,193,550	22.7%	\$2.8078	2,091,248	21.2%	\$2.8747
Division 4	240,995	2.5%	\$5.1791	267,554	2.7%	\$5.2998

2022 General Rate Case (A.22-07-00\_)
Southern Division
Table 1
Current and Proposed Percentage Step Ups in Commodity Charge -- Single Family

Southern Division		
	Current Rate Differential to SQR	Proposed Rate Differential to SQR
Tier 1	80.0%	90.0%
Tier 2	115.0%	105.0%
Tier 3	132.0%	118.0%
Tier 4	148.3%	133.0%

East Pasadena		
	Current Rate Differential to SQR	Proposed Rate Differential to SQR
Tier 1	100.0%	90.0%
Tier 2	0.0%	115.0%
Tier 3	0.0%	128.9%

Warring		
	Current Rate Differential to SQR	Proposed Rate Differential to SQR
Tier 1	100.0%	95.0%
Tier 2	0.0%	177.3%

Bellflower		
	Current Rate Differential to SQR	Proposed Rate Differential to SQR
Tier 1	100.0%	95.0%
Tier 2	0.0%	100.0%
Tier 3	0.0%	119.3%

2022 General Rate Case (A.22-07-00\_)
Southern Division
Table 2
Impact of Proposal on Tier Rates -- Single Family

San Diego								
Tier	CCFs				CGLs			
	Current	Proposed Consolidation Base	Proposed Consolidation Purchased Water Add on	Total Proposed Consolidation	Current	Proposed Consolidation Base	Proposed Consolidation Purchased Water Add on	Total Proposed Consolidation
1	\$ 6.1153	\$ 4.4870	\$ 2.1230	\$ 6.6100	\$ 8.1756	\$ 5.9987	\$ 2.8382	\$ 8.8369
2	\$ 8.7904	\$ 5.2349	\$ 2.4768	\$ 7.7117	\$ 11.7518	\$ 6.9985	\$ 3.3112	\$ 10.3097
3	\$ 10.0897	\$ 5.8830	\$ 2.7834	\$ 8.6664	\$ 13.4889	\$ 7.8650	\$ 3.7212	\$ 11.5862
4	\$ 11.3360	\$ 6.6308	\$ 3.1373	\$ 9.7681	\$ 15.1551	\$ 8.8648	\$ 4.1942	\$ 13.0590

Ventura								
Tier	CCFs				CGLs			
	Current	Proposed Consolidation Base	Proposed Consolidation Purchased Water Add on	Total Proposed Consolidation	Current	Proposed Consolidation Base	Proposed Consolidation Purchased Water Add on	Total Proposed Consolidation
1	\$ 4.4143	\$ 4.4870	\$ 0.9664	\$ 5.4535	\$ 5.9014	\$ 5.9987	\$ 1.2920	\$ 7.2908
2	\$ 6.3450	\$ 5.2349	\$ 1.1275	\$ 6.3624	\$ 8.4826	\$ 6.9985	\$ 1.5074	\$ 8.5059
3	\$ 7.2823	\$ 5.8830	\$ 1.2671	\$ 7.1501	\$ 9.7357	\$ 7.8650	\$ 1.6940	\$ 9.5590
4	\$ 8.1822	\$ 6.6308	\$ 1.4282	\$ 8.0590	\$ 10.9388	\$ 8.8648	\$ 1.9094	\$ 10.7741

Los Angeles- Baldwin Hills								
Tier	CCFs				CGLs			
	Current	Proposed Consolidation Base	Proposed Consolidation Purchased Water Add on	Total Proposed Consolidation	Current	Proposed Consolidation Base	Proposed Consolidation Purchased Water Add on	Total Proposed Consolidation
1	\$ 3.8659	\$ 4.4870	\$ 0.2129	\$ 4.6999	\$ 5.1684	\$ 5.9987	\$ 0.2846	\$ 6.2833
2	\$ 5.5573	\$ 5.2349	\$ 0.2483	\$ 5.4832	\$ 7.4295	\$ 6.9985	\$ 0.3320	\$ 7.3305
3	\$ 6.3779	\$ 5.8830	\$ 0.2791	\$ 6.1621	\$ 8.5266	\$ 7.8650	\$ 0.3731	\$ 8.2381
4	\$ 7.1663	\$ 6.6308	\$ 0.3145	\$ 6.9454	\$ 9.5807	\$ 8.8648	\$ 0.4205	\$ 9.2853

Los Angeles- Duarte								
Tier	CCFs				CGLs			
	Current	Proposed Consolidation Base	Proposed Consolidation Purchased Water Add on	Total Proposed Consolidation	Current	Proposed Consolidation Base	Proposed Consolidation Purchased Water Add on	Total Proposed Consolidation
1	\$ 3.4485	\$ 4.4870	\$ -	\$ 4.4870	\$ 4.6103	\$ 5.9987	\$ -	\$ 5.9987
2	\$ 4.9573	\$ 5.2349	\$ -	\$ 5.2349	\$ 6.6275	\$ 6.9985	\$ -	\$ 6.9985
3	\$ 5.6897	\$ 5.8830	\$ -	\$ 5.8830	\$ 7.6065	\$ 7.8650	\$ -	\$ 7.8650
4	\$ 6.3929	\$ 6.6308	\$ -	\$ 6.6308	\$ 8.5466	\$ 8.8648	\$ -	\$ 8.8648



2022 General Rate Case (A.22-07-00\_)
Southern Division
Table 3
Summary of Changes to Single Family Residential Rates -- Single Family

San Diego									
	Current				Proposed Consolidation				
Tier	2021 Usage (Authorized)	% of Authorized Usage	Tier Width (CGLs)	Tier Endpoint (CGLs)	2024 Usage (Proposed)	% of Proposed Usage	Proposed Tier Width	Proposed % Step Up in Commodity Rate	Proposed Base Rate (\$/CGLs)
Tier 1	8,336,228	59.2%	85	85	8,395,640	59.95%	85	8.1%	\$8.8369
Tier 2	2,198,566	15.6%	50	135	2,296,279	16.40%	50	-12.3%	\$10.3097
Tier 3	2,338,090	16.6%	163	298	2,461,746	17.58%	163	-14.1%	\$11.5862
Tier 4	1,220,486	8.7%	N/A		851,026	6.08%	N/A	-13.8%	\$13.0590

Ventura									
	Current				Proposed Consolidation				
Tier	2021 Usage (Authorized)	% of Authorized Usage	Tier Width (CGLs)	Tier Endpoint (CGLs)	2024 Usage (Proposed)	% of Proposed Usage	Proposed Tier Width	Proposed % Step Up in Commodity Rate	Proposed Base Rate (\$/CGLs)
Tier 1	16,633,614	59.2%	85	85	15,853,470	59.95%	85	23.5%	\$7.2908
Tier 2	4,386,887	15.6%	50	135	4,336,060	16.40%	50	0.3%	\$8.5059
Tier 3	4,665,286	16.6%	163	298	4,648,510	17.58%	163	-1.8%	\$9.5590
Tier 4	2,435,285	8.7%	N/A		1,606,991	6.08%	N/A	-1.5%	\$10.7741

Los Angeles- Baldwin Hills									
	Current				Proposed Consolidation				
Tier	2021 Usage (Authorized)	% of Authorized Usage	Tier Width (CGLs)	Tier Endpoint (CGLs)	2024 Usage (Proposed)	% of Proposed Usage	Proposed Tier Width	Proposed % Step Up in Commodity Rate	Proposed Base Rate (\$/CGLs)
Tier 1	3,931,831	59.2%	85	85	4,027,114	59.95%	85	21.6%	\$6.2833
Tier 2	1,036,966	15.6%	50	135	1,101,450	16.40%	50	-1.3%	\$7.3305
Tier 3	1,102,774	16.6%	163	298	1,180,819	17.58%	163	-3.4%	\$8.2381
Tier 4	575,649	8.7%	N/A		408,209	6.08%	N/A	-3.1%	\$9.2853

Los Angeles- Duarte									
	Current				Proposed Consolidation				
Tier	2021 Usage (Authorized)	% of Authorized Usage	Tier Width (CGLs)	Tier Endpoint (CGLs)	2024 Usage (Proposed)	% of Proposed Usage	Proposed Tier Width	Proposed % Step Up in Commodity Rate	Proposed Base Rate (\$/CGLs)
Tier 1	5,845,850	59.2%	85	85	6,358,527	59.95%	85	30.1%	\$5.9987
Tier 2	1,541,763	15.6%	50	135	1,739,112	16.40%	50	5.6%	\$6.9985
Tier 3	1,639,605	16.6%	163	298	1,864,430	17.58%	163	3.4%	\$7.8650
Tier 4	855,876	8.7%	N/A		644,534	6.08%	N/A	3.7%	\$8.8648



**Los Angeles- San Marino**

	<i>Current</i>				<i>Proposed Consolidation</i>				
Tier	2021 Usage (Authorized)	% of Authoirzed Usage	Tier Width (CGLs)	Tier Endpoint (CGLs)	2024 Usage (Proposed)	% of Proposed Usage	ProposedTier Width	Proposed % Step Up in Commodity Rate	Proposed Base Rate (\$/CGLs)
Tier 1	13,057,367	59.2%	85	85	13,086,272	59.95%	95.1	30.1%	\$5.9987
Tier 2	3,443,701	15.6%	50	135	3,579,207	16.40%	39.9	5.6%	\$6.9985
Tier 3	3,662,244	16.6%	N/A	#VALUE!	3,837,120	17.58%	163	3.4%	\$7.8650
Tier 4	1,911,696	8.7%	N/A		1,326,493	6.08%	N/A	3.7%	\$8.8648

**East Pasadena**

	<i>Current</i>				<i>Proposed Consolidation</i>				
Tier	2021 Usage (Authorized)	% of Authoirzed Usage	Tier Width (CGLs)	Tier Endpoint (CGLs)	2024 Usage (Proposed)	% of Proposed Usage	ProposedTier Width	Proposed % Step Up in Commodity Rate	Proposed Base Rate (\$/CGLs)
Tier 1	-	100.0%	N/A	N/A	3,115,222	66.20%	135	18.8%	\$4.9141
Tier 2	-	0.0%	N/A	N/A	1,063,877	22.61%	163	N/A	\$6.2792
Tier 3	-	0.0%	N/A	N/A	526,517	11.19%	N/A	N/A	\$7.0381
Tier 4	-	0.0%	N/A	N/A	-	0.00%	N/A	N/A	\$0.0000

**Warring**

	<i>Current</i>				<i>Proposed Consolidation</i>				
Tier	2021 Usage (Authorized)	% of Authoirzed Usage	Tier Width (CGLs)	Tier Endpoint (CGLs)	2024 Usage (Proposed)	% of Proposed Usage	ProposedTier Width	Proposed % Step Up in Commodity Rate	Proposed Base Rate (\$/CGLs)
Tier 1	-	100.0%	N/A	N/A	1,266,527	93.92%	298	15.8%	\$2.7737
Tier 2	-	0.0%	N/A	N/A	81,990	6.08%	N/A	N/A	\$5.1765
Tier 3	-	0.0%	N/A	N/A	-	0.00%	N/A	N/A	\$0.0000
Tier 4	-	0.0%	N/A	N/A	-	0.00%	N/A	N/A	\$0.0000

**Bellflower**

	<i>Current</i>				<i>Proposed Consolidation</i>				
Tier	2021 Usage (Authorized)	% of Authoirzed Usage	Tier Width (CGLs)	Tier Endpoint (CGLs)	2024 Usage (Proposed)	% of Proposed Usage	ProposedTier Width	Proposed % Step Up in Commodity Rate	Proposed Base Rate (\$/CGLs)
Tier 1	-	100.0%	N/A	N/A	1,214,090	65.40%	85	37.2%	\$4.0511
Tier 2	-	0.0%	N/A	N/A	327,079	17.62%	50	N/A	\$4.2643
Tier 3	-	0.0%	N/A	N/A	315,345	16.99%	N/A	N/A	\$5.0852
Tier 4	-	0.0%	N/A	N/A	-	0.00%	N/A	N/A	\$0.0000

5/8 inch Meter Rate

	Current	Proposed Consolidation
San Diego	\$ 16.52	\$ 22.96
Ventura	\$ 16.52	\$ 22.96
Los Angeles- Baldwin Hills	\$ 16.52	\$ 22.96
Los Angeles- Duarte	\$ 16.52	\$ 22.96
Los Angeles- San Marino	\$ 16.52	\$ 22.96
East Pasadena	\$ 17.44	\$ 14.59
Warring	\$ 42.59	\$ 46.33
Bellflower	\$ 29.63	\$ 25.23

Percentage of Purchased Water Consolidated

San Diego	53%
Ventura	75%
Los Angeles- Baldwin Hills	90%
Los Angeles- Duarte	100%
Los Angeles- San Marino	100%

2022 General Rate Case (A.22-07-00\_)

Northern Division

Table 1

Current and Proposed Percentage Step Ups in Commodity Charge -- Single Family

Sacramento

Tier Breakpoint	Current Rate Differential to SQR	Proposed Rate Differential to SQR
Tier 1	86%	82.1%
Tier 2	115%	125.0%
Tier 3	145.70%	150.0%

Larkfield

Tier Breakpoint	Current Rate Differential to SQR	Proposed Rate Differential to SQR
Tier 1	96.0%	96.0%
Tier 2	100.0%	100.0%
Tier 3	115.0%	115.0%
Tier 4	130.5%	118.6%

Meadowbrook

Tier Breakpoint	Current Rate Differential to SQR	Proposed Rate Differential to SQR
Tier 1	95.0%	75.0%
Tier 2	100.0%	100.0%
Tier 3	111.5%	111.0%

Bass Lake

Tier Breakpoint	Current Rate Differential to SQR	Proposed Rate Differential to SQR
Tier 1	100%	100%

2022 General Rate Case (A.22-07-00\_)

Northern Division

Table 2

Impact of Proposal on Tier Rates -- Single Family

Sacramento

	CCFs		CGLs	
Tier	Current	Proposed	Current	Proposed
1	\$ 3.3999	\$ 3.0717	\$ 4.5453	\$ 4.1065
2	\$ 4.5586	\$ 4.6761	\$ 6.0944	\$ 6.2515
3	\$ 5.7750	\$ 5.6114	\$ 7.7205	\$ 7.5018

Larkfield

	CCFs		CGLs	
Tier	Current	Proposed	Current	Proposed
1	\$ 6.4018	\$ 6.1608	\$ 8.5586	\$ 8.2364
2	\$ 6.6689	\$ 6.4175	\$ 8.9156	\$ 8.5795
3	\$ 7.6690	\$ 7.3801	\$ 10.2527	\$ 9.8665
4	\$ 8.7028	\$ 7.6112	\$ 11.6348	\$ 10.1753

Meadowbrook

	CCFs		CGLs	
Tier	Current	Proposed	Current	Proposed
1	\$ 1.7287	\$ 1.5271	\$ 2.3112	\$ 2.0415
2	\$ 1.8200	\$ 2.0361	\$ 2.4332	\$ 2.7221
3	\$ 2.0280	\$ 2.2605	\$ 2.7112	\$ 3.0220

2022 General Rate Case (A.22-07-00\_)
Northern Division
Table 3
Summary of Changes to Single Family Residential Rates -- Single Family

Sacramento									
Current					Proposed				
Tier	2021 Usage (Authorized)	% of Authoirzed Usage	Tier Width (CGLs)	Tier Endpoint (CGLs)	2024 Usage (Proposed)	% of Proposed Usage	ProposedTier Width	Proposed % Step Up in Commodity Rate	Proposed Base Rate (\$/CGLs)
Tier 1	34,732,265	65.0%	74.8	74.8	37,149,174	65.39%	75	-9.7%	\$4.1065
Tier 2	11,755,536	22.0%	74.8	149.6	12,751,222	22.44%	75	2.6%	\$6.2515
Tier 3	6,946,453	13.0%			6,914,752	12.17%		-2.8%	\$7.5018

Larkfield									
Current					Proposed				
Tier	2021 Usage (Authorized)	% of Authoirzed Usage	Tier Width (CGLs)	Tier Endpoint (CGLs)	2024 Usage (Proposed)	% of Proposed Usage	ProposedTier Width	Proposed % Step Up in Commodity Rate	Proposed Base Rate (\$/CGLs)
Tier 1	726,962	50.9%	37.4	37.4	723,056	45.71%	37	-3.8%	\$8.2364
Tier 2	571,286	40.0%	97.5	134.9	686,336	43.39%	98	-3.8%	\$8.5795
Tier 3	68,554	4.8%	55.5	190.4	88,337	5.59%	55	-3.8%	\$9.8665
Tier 4	61,413	4.3%	N/A		83,940	5.31%	N/A	-12.5%	\$10.1753

Meadowbrook									
Current					Proposed				
Tier	2021 Usage (Authorized)	% of Authoirzed Usage	Tier Width (CGLs)	Tier Endpoint (CGLs)	2024 Usage (Proposed)	% of Proposed Usage	ProposedTier Width	Proposed % Step Up in Commodity Rate	Proposed Base Rate (\$/CGLs)
Tier 1	1,331,302	51.7%	34	34	593,922	26.00%	34	-11.7%	\$2.0415
Tier 2	661,788	25.7%	24	58	342,648	15.00%	24	11.9%	\$2.7221
Tier 3	581,962	22.6%			1,347,747	59.00%		N/A	\$3.0220

5/8 inch Meter Rate			
	Current		Proposed
Sacramento	\$	19.16	\$ 30.64
Larkfield	\$	17.99	\$ 23.49
Meadowbrook	\$	19.77	\$ 27.71